No. 132

W. Elliot Woodward's

NINETY-SECOND SALE.

Archæology.

Wednesday and Thursday, Dec. 21, 22, 1886

CATALOGUE

OF THE

ARCHAEOLOGICAL COLLECTIONS

OF

Several Prominent American Collectors,

INCLUDING

PROF. W. M. LINNEY'S KENTUCKY COLLECTION, REV. THOS. T. LONG'S GEORGIA COLLECTION, AND THE CELEBRATED SWANTON FIND, VERMONT, FROM THE COLLECTION OF MR. H. H. DEAN.

Also, the Collection of several other well known American Collectors.

Especially rich in Prehistoric Pipes from American Localities, and in Burial Pottery from the Western Mounds, from Costa Rica, and other Locations on the Isthmus.

THE FINEST AMERICAN COLLECTION THAT I HAVE EVER YET OFFERED.

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Tuesday and Wednesday Dec. 21, 22, 1886.

Goods on Exhibition at 10 o'clock in the morning, from Monday, December 20, to the close of the sale, which will commence promptly at Tuesday the 21st, at 2 o'clock P. M.

Catalogue by W. Elliot Woodward.

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This Catalogue, No. 92, may be had shortly after the sale, printed on heavy tinted paper, uncut, uniform with my series, and neatly printed in red ink, for 75 cents a copy.

All of my other Catalogues, 1 to 91 inclusive, may be had in the same style, with the exception of two or three numbers which are exhausted and cannot be had.

Catalogue No. 93, for a sale of coins and medals will be issued speedily, and the sale will probably take place near the beginning of the year. Priced Catalogues on heavy tinted paper may be had at $1 each. Unpriced ones free before the sale.

A list of my Coin Sale Catalogues will be sent gratuitously, if requested.

CATALOGUE.

ARCHAEOLOGY.

The following examples of prehistoric in stone and metal are mainly derived from several sources, as follows:

First, the collection of a reverend gentleman, recently gathered amongst the farmers in the northwestern portion of Georgia, largely from Cherokee and Catoosa Counties, where they have been picked up during several generations. To the large number of pipes here found, and to the remarkable transhment discovered, some particular attention is asked.

Second, the Kentucky collection, gathered by W. M. Linney, Geologist of the State of Kentucky. Prof. Linney having been engaged for a number of years in the field work of the geology of Kentucky, has, through the medium of constant travel amongst the people of the State, enjoyed unusual facilities for investigating and collecting in geology and mineralogy, as well as all other branches of natural history, and incidentally in archaeology, of which he has been a close student, to which his various interesting volumes treating on these different subjects, embodying the observations of many years, will bear him witness. Amongst the interesting finds derived from his collection, the most noticeable object is the one to which he has assigned the name "the what is it," for want of a better. In many others, perhaps less remarkable, special attention is requested; in pipes, particularly, some of which are of the most extraordinary description.

Third, among the collections here referred to, that known as the "Swanton, Vt. find," discovered by Mr. H. H. Dean, is by far the most interesting and the most extraordinary. A full account of these objects, drawn up by Prof. Perkins of the University of Vermont, Burlington, is very valuable, particularly as it is accompanied by drawings and is scientifically accurate.

Fourth, a collection of prehistoric pottery, from the old Indian graves at Cartago, near Carthage, Costa Rica, the work of a people extinct for between three and four hundred years. These objects are all most rare and interesting. A photographic plate, illustrating more than fifty of the objects, 8 by 10 inches in size, can be obtained by addressing Frederic Stearns & Co., Detroit, Michigan, and enclosing 50c. therefor.

SPEAR HEADS, FISH SPEARS, AND ARROW POINTS.

All the objects following are from Georgia, and mostly from the counties before named. Nearly all are perfect or extra good, the finders usually rejecting all that were defective. They are classified with reference to material chiefly.

1 Arrow Points, generally of small size: triangular, barbed, serrated, one, a jewelry point, appears to be a light carnelian. 33 pcs.

2 Arrow Points, usually of small or moderate size; one a jewelry point of bright color. 40 pcs.

3 Spear Heads, of large size; of slate and quartz; fine lot. 25 pieces.

4 Spear Heads and Arrow Points: of white quartz, a portion crystallized and transparent, some slightly rose-tinted. 25 pcs.

5 Spear Heads and Arrow Points; chert and ferruginous quartz; some of rare variegated colors, large and small; a fine lot. 44 pcs.

6 Arrow and Spear points, variety of forms and materials, all fine. 38 pcs.

7 Fish Spears, Arrow points, etc.; all fine. 41 pcs.

8 Arrow Points, mostly of white quartz: a few are serrated, triangular, etc. All of Georgia, and fine. 32 pcs.

9 Spear Heads and Arrow Points: quartz, slate, etc.: a fine lot. 32 pcs.

10 Arrow and Spear Points, light and dark. A variety: fine. 32 pcs.

11 Arrow Points, large and medium: quartz and slate: fine lot. 32 pcs.

12 Arrow Points, barbed, bifurcated, etc.: various materials. 24 pcs.

13 Arrow Points, mostly small and all fine: coarsely serrated, triangular, etc. 32 pcs.

14 Celt, Hightower River, Barton Co., Ga.: symmetrical and perfect: appears to be of Carib workmanship; round and thick with the top pointed. $8\frac{1}{2}$ x $2\frac{1}{2}$.

15 Celt, Hightower River, Cherokee Co., Ga.: formed like the last but not polished, still very fine. $7\frac{1}{2}$ x $2\frac{1}{2}$.

16 Celt, Cherokee Co.; top chipped; of characteristic form like last two. 6 x $2\frac{1}{2}$.

17 Celt, Barton Co., Ga.; same general form; of red stone; fine 7½ x 2½.

18 Celt, from Peach Tree Creek, Gwinnett Co., Ga.; fine; but one face a little chipped. 7 x 2.

19 Celt, Cherokee Co., Hightower River; Carib form. 5½ x 2.

20 Celt, Hightower River; Carib type; fine 7 x 2.

21 Celt, Cherokee Co.; blue stone, polished; fine; edge a little chipped. 6 x 2.

22 Celt of enormous size; quadrilateral in form, edge broadly expanded; Cherokee Co. 11½ x 4½. A remarkable implement; fine.

23 Celt, extra for size and quality; perfect, with polished edge; Cherokee Co., Ga. 11 x 2½. A beauty.

24 Celt, same general form as the Georgia suite; a little chipped, but fine 7½ x 2½.

25 Celt, Barton County; very good. 6 x 2.

26 Celt, Hightower River; thin. 5½ x 2½.

27 Celt, thin, polished, of dark stone, Cherokee Co. 7 x 2.

28 Celt, with large rounded top, Cherokee Co. 7 x 2½.

29 Celt, top pointed, Yellow River, Rock Co., Ga.; slightly chipped, but fine. 5 x 2½.

30 Celt, thin and broad, Yellow River, Ga. 6 x 2½.

31 Celt, Hightower River, Ga., red sandstone; shows the weathering of immense age. 6½ x 2½.

32 Large, fine Celt, Hightower River, Ga. 8½ x 2½.

33 Handsome polished Celt of the Carib pattern. Chattahoochee River, Ga.; extra fine and large. 9½ x 3.

34 Small flattened Celt, of good form; Hightower River, Ga. 4½ x 2½.

35 Small Celt; flat; edge a little chipped, Cherokee Co., Ga. 4½ x 2½.

36 Celt; top pointed; Big Creek, Forsyth Co., Ga. 4 x 2½.

37 Thin, narrow, pretty Celt; Hightower River. 5½ x 1½.

38 Celt of Diorite; Yellow River, Gwinnett Co., Ga.; polished, top square. 5 x 2½.

39 Celt of light sandstone; fine. 5 x 2½.

40 Polished Celt, Big Creek, Forsyth Co., Ga.; fine. 4 x 2.

41 Flattened Celt, Hightower River, Ga.; fine. 5 x 2½.

42 Broad, flat Celt, or Skinner; blue stone, polished; triangular; broadest toward the edge, narrowest at top.

43 Large Grooved Axe: red sandstone; rudely made for a Georgia implement; of extra size. 7½ x 5.

44 Grooved Axe, well made of light sandstone. 5½ x 3.

45 Grooved Axe of metamorphic slate; good; of scarce material.

46 Grooved Axe, nearly square, Rushville, Ind. 4 x 3½.

47 Grooved Axe, thin edge, found in Gwinnett Co.; a scarce form, one side being flat. 6 x 2½.

48 Small Grooved Axe of light sandstone: Wisconsin. 4 x 3.

49 Grooved Axe of sandstone, Gwinnett Co., Ga.; good. 4½ x 3½.

50 Gouge, Cherokee Co. Outside of N. E. the prehistoric gouge is a rare implement wherever found. 7 x 2½.

51 Pestle or Nut Cracker of quartzite, Hightower River, Ga., of scarce material. 4½ x 3.

52 Grooved Hammer, shows primary use as an axe; fine. 4 x 3.

53 Pestle or Hammer. 4½ x 3.

54 Discoidal Stone of beautiful translucent material which seems to be chalcedony. I have examined with especial care nearly all the fine discoidal stones that can be found in this country at the National Museum of the Smithsonian, the New York collection, the Peabody and others, and have from time to time possessed many of them myself, but I may fairly say that of all the discoidals which I have ever seen, this, for fineness of workmanship and beauty of material, remains unsurpassed. It has never been fractured, though a flaw or crack runs across it, but scarcely detracts from its beauty and perfection. Deeply double concave, and as perfect as though turned in a lathe. Hightower River, Ga. 6 x 2½.

55 Double Convex Discoidal; wrought all over, but rudely made; Forsyth Co., Ga. 6 x 3.

56 Conical Discoidal. Some persons who think they know, say this stone formed part of an arrow maker's kit. It is nicely wrought, of reddish quartz. It has not been used as a rubbing stone and is surely a curious implement. 3½ x 2½.

57 Another object, evidently of the same character as the last, and has probably been put to similar use. 3½ x 2½.

58 Double Concave Discoidal. The double concavity in this piece has only been carved to a shallow depth. It is evidently rudimentary but wrought with considerable care.

59 Double Convex Discoidal; sides nearly flat; good. 1½ x 2½.

60 Double Convex Cheese-shaped Discoidal. This is a rare and uncommon form. 2 x 2.

61 Arrow Anvil, or Rubbing Stone; nearly hemispherical; Hightower River. 2 x 3.

62 Double Convex Discoidal; one side nearly flat, has been used as a rubber. 3 x 1½.

63 Double Convex Discoidal, Gwinnett Co., Ga.; fine. 2¼ x 1½.

64 Double Convex Discoidal; approaches bean shape, with one flattened surface; fine. 1½ x 2.

65 Ball, or Double Convex Discoidal; roughly wrought all over; Hightower River. 6½ x 3.

66 Plano-Convex Discoidal; one side has been written as a rubber; Gwinnett Co., Ga. 3 x 2½.

67 Plano-Convex Discoidal; closely resembles the last; fine. 3½ x 2.

68 Ball of Quartz; rudely wrought, but still shows mark of careful work. 2½ x 1½.

69 Discoidal, both surfaces plain; Gwinnett Co., Ga. Diameter, 3 in.

70 Double Concave Discoidal; rude, but very ancient and wrought all over. 2 x ½.

71 Double Concave Discoidal. The concavities in this piece are merely finger pits, resembling those in hammer stones. Gwinnett Co., Ga. 2½ x 1.

72 Double Concave Discoidal, well wrought. Hightower River. 2 x 1½.

73 Double Convex Discoidal, with finger pits. 2½ x 1½.

74 Bun-shaped Discoidal; irregular, with only finger pits. 2½ x 1½.

75 Double Concave Discoidal; very good. Hightower River, Ga. 5½ x 2.

76 Discoidal; both surfaces plain. 2 x ½.

77 Ball-shaped Discoidal, or perhaps a Target Stone. Gwinnett Co., Ga. 2 x 2.

78 Target Stone, nearly globular, but with one flat surface for balancing; nicely wrought; Cherokee Co., Ga. 2 x 2.

79 Double Convex Discoidal; rude; Cherokee Co. 1 x 3½.

80 Double Convex Cheese-shaped Discoidal of quartzite. 2½ x 1½.

81 Ball, or Target Stone; ground nearly all over. Diameter, 2½ in.

82 Target Stone of coarse sandstone; fine, scarce.

83 Target Stone; very fine. Diam. 1½ in.

84 Target Stone of handsome white quartz. 1 x ½.

85 Target Stone of iron ore. Diam. 1 in.

86 Target Stone of hematite; fine, *rare*.

87 Target Stone of fine sandstone. 1½.

88 Target Stone, hematite; spherical, elongated; very fine. 1 x 1½.

89 Cone of soapstone with hollow base; fine. 1¾ x 1.

90 Target Stone of iron ore, resembles in form a crystal of garnet; fine. 1 x 1¼.

91 Soapstone Cone; top truncated, base rubbed smooth. 2 x 1½.

92 Cheese-form Discoidal. Gwinnett Co. 3½ x 2.

93 Double Convex Discoidal; poor.

94 Cone with flattened top. Gwinnett Co. 2 x 1.

95 Target Stone of large size. 2½ in. dia.

96 Banner Stone, Cherokee Co. 3 x 2.

97 Double Concave Discoidal. 2½ x 1½.

98 Grooved Slung-shot of iron ore. 3½ x 2.

99 Banner Stone: imperforate; blocked out and rudely finished. 4 x 3.

100 Banner Stone; one side flat; Cherokee Co. 2½ x 2.

101 Banner Stone, axe-shape; fine. 2 x 1¾.

102 Stone Tube or Pipe, hole enlarges toward one end: well made. 8 inches in length. Opening expands from ½ inch to an inch. Chattahoochee Co.; fine and *rare*.

103 Stone Tube, opening largely expanding toward the end; well made and a rare object. Length 7 in.

104 Tubular Rubbing Stone, may have been used for straightening arrows; tube smooth and of even diameter. Chattahoochee County, Ga. 3½ x 2½.

105 Alabaster Tube. 2¾ x 2.

106 Rubbing Tube, closely resembling 104; equally fine. Cherokee Co. 2¾ x 2.

107 Portion of a stone Pipe-stem, appears to be of jasper 2 in. long.

108 Another, similar 2½.

109 Pestle-shaped Tube; perforation only started, nicely finished. Hightower River, Ga. 6 x 3.

110 Rubbing Stone; perforation commenced. 3 x 2½.

111 Gorget; oval, with two perforations. Cherokee Co., Ga.

112 Gorget, with two large perforations; fine. Georgia. 3¼ x 1¼

113 Oval Gorget; curved, end broken.

114 Gorget; three perforations near together, ends square. Georgia.

115 Oblong Gorget; two perforations; fine.

116 Gorget; elliptical, fine. Ga.

117 Gorget; diamond-form, fine.

118 Gorget; long elliptical, two large perforations.

119 Canoe-shaped stone, commenced. Georgia. 1 x 1½.

120 Clay Stones and Iron Ore; symmetrical in form. 4 pcs.

121 Whorl Stone, or Bead, Ga.; fine. Diam. 1¼ in.

122 Bead, or perhaps a Nipple Shell; fine and rare. Diam. 1¼ in.

123 Bead, or Whorl Stone; partially imperforate. Diam. 1¼ in.

124 Shuttle-shaped object; a reel boring commenced on one side. Length 2¼ in.

125 Similar object covered with tallies; fine. Length 3½ in.

126 Another object, nearly a duplicate. 2½ in.

127 Oblong coarse Sandstone object, ends *bifurcated*. 2¼ in.

128 Gorget, diamond form; imperforate. 5½ x 2¼.

129 Pendant, red slate or jasper. 5¼ x 2.

130 Celt; small, one end broken.

131 Saddle-shaped stone, red sandstone. 2½ x 1½.

132 Oval Rubbing Stone. 2½ x 1½

133 Conical Rubbing Stone. 1¾ x 1¼

134 Conical Rubbing Stone; base hollowed out, suggests its use as a nipple shield; fine and well made like 122.

135 A handsome Scraper, spade-shaped and perforated; a very fine and scarce implement. Gwinnett Co., Ga. 5 x 4.

136 Scraper like the last, but while that has one perforation this has two: slate, very fine, but chipped around the edge. 5½ x 4.

137 Square Rubbing Stone of sharp-grained sandstone; fine and perfectly symmetrical. 2 x 2¼.

138 Cheese-shaped Discoidal Stone, Ga.; fine. 3 x 2.

139 Double Concave Discoidal, quartz. 2¾ x 2.

140 Double Concave Discoidal, Ga. 3 x 1¼.

PIPES.

The following prehistoric Pipes from Georgia, surpass in quality any single lot that I have ever met with together. The authenticity of each one is perfectly established, all having been gathered by Rev. Mr. Long, amongst the farmers in Gwinnett, Cherokee, and other neighboring counties in Georgia, some of them having been known for many years.

141 Medium sized Calumet, or Peace Pipe: bowl and stem alike expanding: bowl at a right angle with the stem, approaching conical in shape; the bowl cut all around with tallies; fine, the upper edge a little chipped. 3½ x 3.

142 Pipe of dark red stone like jasper. Neatly made and handsomely finished, the surface polished. Hightower River, Cherokee Co. 1¾ x 2.

143 Large Calumet, picked up from a ditch 1½ ft. from the surface in Dawson Co., Ga., by Mr. R. H. Grogan. Handsome polished pipe, without defect; fine and *very rare*. 5¼ x 3¼.

144 A Pipe of most remarkable character: it appears to be of ochre or of some light ore of iron. The front of this pipe bears a carving of unmistakable Indian physiognomy. The mouth and one eye are of white stone, rudely but firmly inserted. One of the most remarkable in the collection. Found in Gwinnett Co.

145 Large Calumet. This calumet is quite ornate in its style, of graceful form, with a ridge extending round all the corners: perhaps the best pipe in the lot. Found on the Chattahoochee River by Mr. W. Vernor.

146 Calumet of light sandstone; massive and very fine. From the Hightower River, found by Mr. Abernathy. 5¼ x 3.

147 Duck Pipe, of large size; shows wings and body: fine and *rare*. 8 x 3¼.

148 Large and fine Calumet; top a little nicked; Hightower River, Ga. 4½ x 2¾.

149 Pipe; appears to be of mound pottery; fine, rare. 2 x 2.

150 Duck Pipe; resembles 147, but not so elaborate, but polished and fine. Cherokee Co. 6½ x 3.

151 Pipe, bears some incised lines, but probably they are modern, a good pipe. 3 x 2.

152 Stone Pipe; imperfect. 2¼ x 1½.

153 Carving, an Indian face; shows one ear and an eye distinctly; of stone, or perhaps of pottery. 2¼ x 1½

MISCELLANEOUS GEORGIA OBJECTS

154 Small Discoidal. Chattahoochee River, Ga. Dia. 1¼.

155 Discoidal of mound pottery. Georgia. 1½.

156 Discoidal, appears to be of mound pottery. 1½

157 Double Convex Discoidal of granular or crystalline stone. Chattahoochee River, Ga.

158 Double Convex Discoidal; finely wrought. Forsyth Co. 1¼ in.

159 Concave Discoidal, mound pottery. Georgia. 1¾.

MOUND POTTERY FROM GEORGIA

160 Broad, flaring Bowl, contracting near the top, expanding below, covered with arabesque ornamentation. From Barton County. These are the only samples of mound pottery that I have ever received from Georgia. Height 6¾ in., dia. 7¼ in., capacity about 2 qts.; very fine indeed, scarcely blemished.

161 Mound pottery, in form resembling the last; rounded or pointed at the bottom; neck contracting, raised ornaments surrounding. Milton Co. Height 4½, dia. 5 in., capacity more than 1 qt.; very fine indeed.

162 Mound pottery, opencreek Vase; neck expanded, bottom flat. Arkansas; received from Davenport Academy of Sciences. Ht. 6½, greatest dia. 5 in., capacity 1 to 2 qts., very fine indeed.

163 Fine Bowl-shaped Vessel from Georgia.

164 Portion of large Vase, with opening at top near the side; colored with a red pigment, like enamel. I believe this piece to be Central American. 6 in. tall.

164a Portions of Soapstone Vessels from R. I.; well finished but only fragments. Largest, 5 x 3 in. 3 pcs.

165 Large soapstone Dish from Northwest Georgia; well wrought and perfect, oval. Length 10, height 5 in.; very fine.

166 Water-worn Pebble, resembling hematite or jasper; in form an oval discoidal stone. 2¼ x ¾.

OBJECTS MOSTLY FROM THE SOUTH AND WEST.

167 Long Pestle; round and flattened; Ohio. At the South a round pestle is a rare object. 17 x 2.

168 Part of an Ornament cut from light flesh-colored stone; perforated, singular. 4 pcs.

169 Grooved Axe; fine; of light granite; Hightower River, Ga. 5 x 2½.

170 Grooved Axe from Wisconsin; shows secondary use as a hammer; fine.

171 Grooved Axe, Wisconsin; slender, elongated, and somewhat curved. 7½ x 3¼.

172 Grooved Axe; deep, broad groove, with head contracted. From Brown Deer, Wisconsin. 5½ x 3½.

173 Medium-sized Grooved Axe; round head; Wisconsin; good. 5½ x ¾.

174 Grooved Axe from Mitchell Co., N. C., originally one of the finest axes I ever saw, but the bit unfortunately broken off. 3½ x 4.

175 Large Grooved Axe, Ohio; broad, shallow groove. 7 x 5.

176 Large Grooved Axe, the bit is broken. Green Bay, Wis. 6 x 5.

177 Grooved Axe of coarse hornblende; edge broken; Cooper Co., Mo. 4½ x 3.

178 Small Grooved Axe; secondary use as a hammer; blue slate, Ga. 4 x 2½.

179 Grooved Axe of stratified stone; narrow point, with broad, shallow groove. 4¼ x 3.

180 Large and very fine Celt. Faulkner Co., Arkansas. 9½ x 3½. One of the best celts in the sale.

181 Fine, large Celt, broken in two: the fracture shows a curious columnar structure. Wisconsin. 5½ x 3½.

182 Celt, N. Carolina, resembles the Carib form from the West Indies. 2½ x 1½.

183 Celt, in form resembles the last; fine. Rhea Co., Tennessee. 5¾ x 2.

184 Broad, blunt Celt; very good. Tennessee Co., Tenn. 5 x 2½.

185 Thin, broad Celt, with pointed top; fine. Highlower River, Ga. 7 x 1¾.

186 Celt, broad, with square top. N. C. 4 x 2.

187 Celt, top flattened, one face squared. Macon Co., N. C. 3 x 2.

188 Small Celt. Oneida Co., N. Y.; *rare* for location.

189 Grooved Hammer stone; very fine, scarce. Highlower River. 2 x 1¼.

190 Long Pestle, in form somewhat triangular. Georgia. At the South a *rare* implement. 10 x 2¼.

191 Round Pestle of reddish slate. N. Carolina. 9½ x 3.

192 Slate Pestle, a trifle broken. S. Carolina. 9¼ x 2½.

193 Slate Pestle, round, of good form. N. C. 8 x 2½.

194 Long Pestle, slate, flattened at the sides. N. C. 10 x 2.

195 Bung-shaped Discoidal, quartz or quartzite; nicely wrought. Dia. 3¼ in.

196 Bung-shaped Discoidal; *rare* and about fine. Ga. Dia. 2¼.

197 Double-convex Discoidal; very good. 3 x 1¼.

A SMALL, CHOICE COLLECTION FROM INDIANA.

198 A large, handsome flat Celt or Skinner; extremely fine and of this size *very rare*. 8 x 4.

199 Large, polished Celt, resembling jasper; *rare*. Near Indianapolis, Indiana. 7 x 3.

200 Jasper Spade; *rare* in this material, very fine. Indiana. 8 x 3¼.

201 Handsome-wrought metamorphic slate Celt; fine, but I suspect the genuineness of this piece, it is too handsome. 5¼ x 3.

202 Horn-shaped Banner Stone. I have never met with a banner stone of precisely this form; the one nearest to it is in the collection of Mr. Rudge of Boston, who paid me $50 for it; the Smithsonian has some similar; metamorphic slate. 9¼ x 3.

203 Banner Stone; grooved, not perforated, in form resembles the last, but less distinctly marked as horn-shaped; metamorphic stone, polished. 6¼ x 3.

204 Gorget, top and bottom expanded, contracting in the centre; very fine. Indiana. $3\frac{1}{2}$ x 2.

205 Gorget, with two small perforations, somewhat coffin-shaped; fine and scarce. Indiana. $4\frac{1}{2}$ x $1\frac{1}{2}$.

206 Gorget or Pendant, imperforate, form like the last. $4\frac{1}{2}$ x $1\frac{1}{2}$.

207 Very fine slate Pendant; edge has been used as a tally-stone. 4 x 2.

208 Pendant, large perforation from both sides, narrows at the top; slate, fine. Indiana. 4 x 2.

209 Slate Pendant, imperforate, form like the last. Indiana. 4 x 3.

GREAT SPADES FROM ALTON, ILL.

210 Leaf-shaped Spade; new and perfect, has never been used, one side patinated, showing the original crust of stone; as fine an object of its class as can be found. $12\frac{1}{4}$ x 5.

211 Another leaf-shaped Spade; in fineness and quality a duplicate of the last, just as made, wholly unworn. 13 x $4\frac{3}{4}$.

212 Another of the superb Alton Spades; like the last, and of corresponding size and quality; shows the original patinated crust. 13 x $4\frac{1}{2}$.

213 Another of the same find and of equal quality. These great spades are always *rare* objects. 13 x $4\frac{1}{2}$.

214 Spade, St. Clair County, Ind.: nearly triangular: polished by much use, no doubt by the removal of sand, very likely in the building of mounds. Fine. $7\frac{1}{2}$ x $4\frac{1}{4}$.

PROF. W. M. LINNEY'S COLLECTION.

Mr. Linney's profession as State geologist of the State of Kentucky gave him an excellent opportunity for adding to his collection of Pipes, in obtaining which he has been unusually successful, as the following list will show.

PREHISTORIC PIPES.

215 Pipe; stone in form of a bear's head, bowl at top of the head, stem inserted in the back of the neck; both sides covered with deep striated lines. The back or top of the neck shows similar ornamentation. From a mound in Garrard Co., Kentucky. About as rare and desirable as any pipe that can be found. Perfect. $3\frac{1}{2}$ x $3\frac{1}{4}$.

216 A large, polished soapstone Pipe or Calumet. Some recent owner has cut on this pipe the date 1791, together with some other incised lines which are of coarse modern. Very fine, and of great antiquity. Bugle Co., Ken. 5 x 2½

217 Bird-head Pipe, probably a duck's head. Polished, fine and *extremely rare*. Bugle Co., Ken. 2½ x 3½

218 Large sized barrel-shaped Pipe or Calumet, of light-grained sandstone; the perforation for the bowl has a depth of 4½ inches. Very fine; one of the *rarest* in the lot. Bugle Co., Ken. 5½ x 2½.

219 Highly polished Stem of a soapstone Calumet of great size. Madison Co., Ken. 7 x 2 inches. Though fragmentary, gives an excellent idea of the form of the pipe.

220 Sandstone Calumet; has been broken, but an attempt made at restoration. It is still a satisfactory pipe; it bears some incised lines, which are probably modern; *rare*. Montgomery Co., Ky. 3 x 2.

221 Large-sized Calumet, blocked out and marked for perforations; outside nearly finished, shows progress of the work in a partly finished condition. Bath Co., Ky. 3 x 2.

222 Handsome-shaped sandstone Pipe; uncommonly good both in form and quality. Bath Co., Ky. 2 x 1¼.

223 Small ancient Pipe, appears to be of Mound pottery; on all sides covered with deeply incised lines.

224 Nearly globular sandstone Pipe; fine. Mason Co., Ky. 2 x 1½.

225 Small, nearly globular Pipe, doubtless prehistoric, but the surface has been restored by the finder. Mason Co., Ky. Dia. 1 in.

226 Pipe of light sandstone, perhaps of marble; handsome form and nearly perfect. Mason Co., Ky. 1½ x 2.

227 Small, rough Pipe, ploughed up in Mercer Co., Ky. 1½ x 1.

228 Sandstone Pipe. Washington Co., Ky. 1½ x 1½. A device on this pipe is a ghastly death's head of pre-historic workmanship, of unmistakable Indian physiognomy; *most rare*.

229 Flattened Pipe; sandstone, fine and perfect. Mercer Co., Ky. 1½ x 1¼.

230 Pipe, appears to be marble; marked with deep cut lines. 1¼ x ¾.

231 Stone Pipe Stem from shell heap. N. C. 1¾ x 1.

232 Another fragment of the same quality; fine. 1¼ x 1.

233 Small sandstone Pipe: perfect, fine. Bogle Co., Ky. 1½ x 1.

234 Fine Pipe of dark Kentucky marble, with deep cut lines, in form approaching an animal's head. 2 x 1¼.

235 Sandstone Pipe, curious, but of irregular form; fine. Bogle Co., Ky. 1½ x 1¼.

236 Red sandstone Pipe, covered with deeply cut lines systematically arranged; perfect. 1½ x 1¼.

237 Sandstone Pipe, barrel-shaped: perfect. Montgomery Co., Ky. 2 x 1.

238 Alabaster Pipe, in form of a cigarette holder, end of stem marked with tallies; very fine and *rare*.

239 Mound Builder's Pipe of clay, broken, but with a finely carved human face; exhibits a face and the mode of dressing the hair, probably modeled from nature: very curious and of great rarity. 2½ x 2.

240 Pipe. A model cut on a fossil shell, *productus punctatus*. Adair Co. 2 x 1½.

241 Handsome, polished soapstone Pipe. One of the nicest examples I have ever seen. N. Carolina.

242 Another Pipe of the same description, prehistoric: steatite, polished. From a mound in N. C. 2 x 1¼.

The following Pipes are all of modern (that is to say within the century) Cherokee workmanship. Many of these objects have been mistaken for prehistoric productions; they show a style of art characteristic and unmistakable. They are handsome, and though modern are *rare*, and are generally of steatite, though some are occasionally found of pottery.

243 Tomahawk Pipe, straight stem, with urn-like bowl; fine, perfect. 4 x 2½.

244 Squirrel Pipe, octagon stem, on which a squirrel is seated: very fine. Cherokee Co., N. C. 3½ x 2.

245 Pipe with octagon stem and bowl, on the stem a beaver standing: very fine. Cherokee Co., N. C.

246 Rattlesnake Pipe. A spirited representation of the hideous reptile. Cherokee Co., N. C. 4 x 2½.

247 Pipe, stem and bowl, octagonal. Cherokee Indian country, N. C. 2½ x 1¾.

248 Four-stemmed Calumet. On the stems are the totems of several Indian races, the tortoise and rattlesnake. On the bowl, which arises from the centre of the cross composed of the four stems, is a carved Indian face of characteristic features, opposite to which is another of the same general class. On the two opposite sides of the bowl are figured two animals of the deer kind. The most remarkable pipe of this description that I have ever seen, indeed I have never seen another on the same plan of model; remarkable and *most rare*. The stems form a cross, and the bowl is urn-shaped. Stems 7 in. in length, the bowl rises to the height of 3½ inches. The workmanship is of high character. Cherokee Co., N. C.

249 Steatite Pipe, with octagon stem on which a lizard is stretched. Cherokee Co., N. C. 4 x 2½

250 Pipe, with round stem and flaring pitcher-shaped bowl; on the stem a bear lying on his back. Cherokee Co., N. C. 2½ x 1½.

251 Pipe; octagon stem, urn-shaped bowl, bear on stem facing the smoker; fine. Cherokee Co., N. C. 4 x 2½.

SPADES OR DIGGING IMPLEMENTS.

252 Dark chert, showing a portion of the light crust. This and the six following spades were all found in Butler Co., Ky. New, have never been used. 5¼ x 2.

253 Fine oval Spade, dark chert, showing light crust; shows markings like metamorphic slate. 5 x 2½.

254 Oval Spade, variegated chert, with striated markings; fine, unused. Butler Co. 6 x 3¼.

255 Leaf-shaped, nearly oval Spade; unused, fine. Butler Co. 6¼ x 3½.

256 Smaller Spade, same quality and material; fine. Butler Co. 5 x 2¾.

257 Spade, closely resembling the last; fine. 4¼ x 2½.

258 Spade; unused, very fine. Butler Co. 6¼ x 3¼.

DISCOIDAL STONES.

259 Double Concave Discoidal Stone, dia. 7¼ in., thickness about 3 in., with two concavities of the dia. of 4½ in. and depth nearly 1½, white marble, handsomely wrought; from East Tennessee. Broken across the

middle, but nicely repaired, and showing but a slight apparent blemish. I believe this to be the largest discoidal stone that I have ever seen, and certainly one of the finest.

260 Discoidal Stone, rudely made and perhaps is a double mortar, irregular in form. Indiana. 6 x 6½.

261 Discoidal Stone, double concave; fine. Bath Co., Ky. 3x1.

262 Double Convex Discoidal Stone, inclining to bung-shape. N. C.

263 Dark Polished Discoidal. From N. C. 2½ x 1½.

264 Discoidal Stone, double concave, edge slightly rounding; fine. N. C. 2 x ¾.

265 Small disc-shaped Stone, closely resembles Mound Pottery. Lewis Co., Ky. Dia. 1½.

266 A round disc-shaped Stone, perforated through the middle. 1½ x 1¼.

267 A disc-shaped Stone, called by Mr. Linney "a paint cup." 2 x 1½.

268 A curious undescribed stone, called by Mr. Linney "a what is it?" This stone is quadrangular, with a deep quadrangular impression in one side. All the edges and corners are chamfered, all of those encircling the stone are ornamented with reed markings, none of which perforate the stone, but all of which extend partly through, and the commenced perforations are each surrounded with another of larger size. The bottom of the object has one perforation extending through, and another less deep, in addition to a large number like those at first described. Interspersed with these are many deep perforations, usually about ¼ inch in depth. Of these there are eight regularly arranged on the edges, and on the bottom of the object are four more like that surrounding the edges. This stone is handsomely wrought from a dark marble of Anderson County, Ky. It was taken from a mound in that county, and is undoubtedly unique, and its duplicate unknown. No more remarkable object of prehistoric art is known in any American collection. Bought from the finder at the unusual price of $50. 4⅜ x 4¾ x 2¼.

269 A large, light Axe of silicious stone, of great size, deeply grooved, with ridges above and below, the edge rapidly diminishing above the groove; mainly polished; an axe very remarkable for its size, material and form. Another axe, nearly a duplicate of this, was sold to a Chicago collector for $40. 10 x 4¼.

270 Large square Axe of granitic stone. Form symmetrical and very fine, not less remarkable for the beauty of its workmanship. Every portion of this axe is marked by well defined angles. The groove is very deep and broad, extending across the two flats and one edge, the top square. So fine an axe is seldom seen. 8 x 4½.

271 Grooved Axe of light sandstone, very perfect in form. This axe is coated to the depth of about ⅛ in. with an iron ore of red hematite. A similar object I have never heard of or seen before. The axe itself is of remarkable size, but the deposition that has been made since its formation increases its size and weight materially. The coating of iron gives it the appearance of being covered with a dark red patina. 9½ x 6.

272 Large grooved polished Axe. In form this axe closely approaches 269, in the form of groove, head, bit, etc., varying chiefly in the longitudinal groove extending from the bit to the head. The finest axe in the sale. Kentucky. 8½ x 4½.

273 Grooved Axe of red hematite; head polished, of rare material. 3½ x 2½.

274 Large grooved hematite Axe, broken. Garrard Co., Ky. 4 x 3½.

275 Grooved Axe of red jasper, polished, edge broken; of rare material. Bath Co., Ky. 4 x 2½.

276 Red flint grooved chipped Axe. Bogle Co., Ky. 4 x 2½.

277 Polished ungrooved Axe of jasper, shows in very handsome colors. A fine implement. Mercer Co., Ky. 5½ x 2.

278 Fine and large ungrooved hematite Axe. *Rare* both for quality and material. Lincoln Co., Ky. 7 x 3½.

279 Adze, slightly gouge-shaped, light granite. 4½ x 2½.

280 Adze, form like the last; equally fine. 5 x 1½.

281 Ungrooved Axe. Garrard Co., Ky. 3½ x 2½.

282 Fine polished Celt. Garrard Co., Ky.; *rare*. 5½ x 2.

283 Fine ungrooved Axe of agate or chalcedony; rare material. Garrard Co., Ky.

284 Polished reddish flint Spade. Union Co., Ky. 5 x 2½.

285 Gorget-shaped implement of metamorphic slate from Southern Indiana.

286 Flint Hoe, polished from use. Mercer Co., Ky. 3 x 2½.

287 Round Chisel, of dark, nearly black stone; uncommon form and fine. Garrard Co., Ky. 8 x 1.

288 Cone or Hemisphere, brown hematite. Montgomery Co., Ky. Dia. $1\frac{7}{8}$.

289 Hemispherieal, or conical objeet, hematite, beautifully polished; *rare*. A very handsome object. The two last objeets, and several following, Mr. Linney designates as "mammals," on aceount of some fanciful ideas eoncerning certain preferenees of savage men. Montgomery Co., Ky. Diameter $1\frac{3}{4}$ in.

290 Mammal, mammary-formed object cut from sulphate of barytes; fine and searce. Bogle Co., Ky. Dia. $1\frac{1}{2}$ in.

291 Mammal, cut from sulphate of barytes. Diam. $1\frac{1}{2}$ in.

292 Implement of barytes, 2 inehes long.

293 Double eone Ball of barytes, $1\frac{3}{4}$ inches long.

294 Grooved Net Sinker, ovoid in form with one groove; resembling some of the objects in hematite. Bogle Co., Ky. $1\frac{1}{2}$ x $1\frac{1}{4}$.

295 Net Sinker or Plummet. This is of dark, nearly black stone, and has two grooves instead of one. About the same size as last. Mercer Co., Ky.

296 Portion of a Cone or Hemisphere of hematite: very fine. $1\frac{1}{2}$ x $1\frac{1}{4}$.

297 Button, with two perforations. The use of this object is evident or seems to be. It is a very nice button of the modern or present style, and is the only example that I have ever met with; it must be a form *exceedingly rare*. Ohio Valley, Mason Co., Ky. 1 x $1\frac{1}{4}$.

298 Ovoid, finished Stone, at the larger end a perforation commenced. Indiana. $2\frac{1}{2}$ x $1\frac{3}{4}$.

OBJECTS OF BONE, SHELL, Etc.

299 A seetion of a long bone, neatly finished, partly polished, with two small perforations equi-distant from the ends, $1\frac{1}{2}$ inches apart. Fine and *extremely rare*. Taken from a mound in Mercer Co., Ky. $7\frac{1}{2}$ x $1\frac{1}{2}$.

300 Bone Needle; eye near the point.

301 Wampum, or large Shell Beads, diameter ranging from $\frac{1}{2}$ inch to 2 inches. Some are rudely made, others are quite perfect. From a mound in Warren Co., Ky. 50 pieces.

302 Phallus. This remarkable piece, it is evident, possesses some phallic significance; it is of dark stone, veined and marked by prominent lines: fine. Montgomery Co., Ky. $3\frac{3}{4}$ x $1\frac{1}{2}$.

ORNAMENTS

303 Shuttlestone or canoe-shaped object of polished granite rock. Scott Co., Indiana. 3 x 1½.

304 An object shaped like the last, hollowed at the top, corrugated at the sides, and notched at the bottom; stealite, very fine. 2¼ x 1¼.

305 Elliptical Pendant of metamorphic slate; broken, or would be very fine. Kentucky. 3 x 1¼.

306 Gorget, with two holes, side deeply notched. Fine, scarce. Ky. 2½ x 3½.

307 Fine Gorget of purple slate. Anderson Co., Ky. 2¼ x 1½.

308 Polished Slate Pendant. Very fine. Washington Co., Ky. 4 x 2.

309 Gorget, or Pendant, unperforated, blue slate; very fine.

310 Polished Slate Pendant; fine. Montgomery Co., Ky. 3 x 1½.

311 Large polished Pendant, top marked with numerous tallies. Fine. Indiana. 2¼ x 1½.

312 Ornament of calmite, called by the finder red sandstone. Bogle Co., Ky. 2 x 1¼.

313 Portion of a Bar Amulet, of fossiliferous granite, polished; *rare*. Bath Co., Ky.

314 Fine little hematite Celt or Axe. Lewis Co., Ky. 2x1½.

315 Banner Stone, with long perforation; imperfect. Garrard Co., Ky. 3 x 2.

316 Double-edged Celt, slate, polished; fine. Indiana. 6x2½.

317 A sandstone Cup, bottom polished, capacity a little more than a gill; fine and *very rare*. Casey Co., Ky. Dia. 3¼ in., depth 2½ in.

318 Shallow sandstone Dish with four projecting feet; has been cracked, still very fine and a *rare* object. 4 x 1½.

319 Copper Spool with thread fibres, from a mound in Marion Co., Ky. The only example known outside of the Smithsonian Institution, one of which, found there, was procured from the same source. The fibres of thread are doubtless preserved by the salts of copper from the spool. Certainly one of the rarest and most remarkable objects in native copper that has yet been discovered. Dia. 2 in., thickness ¾ in.

320 Huge copper Axe, found at Dayton, Ohio. 8½ x 5 in., about half an inch thick, weight about 5 lbs. The edge has been thickened by hammering and a portion reduced by the same process. Partially covered by an ancient patination. The largest wrought native copper implement that I have met with.

321 Mammal. See remarks *ante* No. 289. This object has evidently been hammered, but it is now covered with marks resembling arabesque ornamentation: these are probably caused by oxidation: fine and *rare*. Taken from a mound 14 feet beneath the surface: Carter Co., Ky. 2⅝ x ½.

LANCE HEADS, SPEAR HEADS AND ARROW POINTS.

322 Long and finely finished Lance Lead. Almost equals in beauty some of the specimens from Scandinavia. 6 x 1½.

323 Crescent shaped Knife, closely analagous to semi-lunar knives of Scandinavia, in America a most rare form. 3 x ¾.

324 Barbed, stemmed Spear Head. Lincoln Co., Ky.

325 Arrow Point of white quartz. Lewis Co., Ky.

326 Arrow Points of jasper. Central Kentucky. 3 pcs.

327 Leaf shaped, or elliptical Spear Head. Ky. 3 x 1½.

328 Large fine Drill, with extreme point broken. Garrard Co., Ky.

329 Arrow Point, with hollow base. Indiana. 2 x 1.

330 Elliptical Arrow Point of veined flint. Garrard Co., Ky. A pretty object. 2 x 1¼.

331 Agate Arrow Head. Colorado. 1½ x ½.

332 Spear Head of yellow quartz or chalcedony. Garrard Co., Ky. 2¾ x 1¼.

333 Triangular Knife, or Spear Head, with rounded base. Garrard Co., Ky. 4 x 2.

334 Quartz Arrow Head, notched, with square base. Garrard Co., Ky.

335 Triangular Scraper, of quartz. Fine. 1 x 1¼.

336 Deeply notched Arrow Point with broad base, Central Ky. 1½ x 1.

337 Quartz Arrow Point, stemmed and notched, Central Ky. 1 x 1⅛.

338 Spear Head, serrated and rotary, point elongated to drill form; fine. 3¼ x 1½.

339 Agate Knife, leaf-shaped, partly polished; fine. 3¼ x 2.

340 Elliptical serrated Arrow Point; two others of jasper; all fine. Central Kentucky. 3 pcs.

341 Arrow Point of rose quartz, Scott Co., Indiana. 2 x 1.

342 Fine, large Spear Point with barb broken. 3½ x 1½.

343 Slender chalcedony Spear Point with thin base. 3 x 1.

344 Blunt Arrow Point, probably used as a Knife, Central Ky. 1½ x 1.

345 Polished Celt, Mercer Co., Kentucky. 1½ x 2.

346 Bead of Banner Stone of metamorphic slate. 2½ x 1½.

347 Spear Point of irregular form, rhomboidal, and unsymmetrical. 2½ x 2.

348 Small Hematite Axe. Central, Ky. 1 x 1½.

A VERMONT COLLECTION.

The Swanton find. This small collection of prehistoric relics has excited more attention than any other ever found in New England. Efforts to obtain them have long been made by a number of prominent collectors, but the finder has persistently rejected all offers until the present time, when a large police force only induced him to part with what he so highly valued. The fifteen first enumerated are all unique as far as known. Only two or three similar ones from the same locality are known to exist, and I have met with nothing answering the same description, excepting stone so imperfect one fated now to my own home in Hathorn, Mass. At the meeting of the American Association for the Advancement of Science, held at Portland, Me., Aug., 1875, Prof. Geo. H. Perkins of Burlington, Vt., read before the association an able and lengthy paper on the subject, describing the location and the objects found, with numerous illustrative engravings. This paper is contained in the volume of the transactions for that year, and I would be glad to reproduce it here if space permitted. Prof. Perkins argues much likelihood to attribute these objects to the Mound Builders, particularly as several are of native copper, and obtained from the Lake Superior region, whence nearly all prehistoric objects in copper of American origin were, with but little doubt, derived. The references that accidentally follow are from Prof. Perkins' article and the accompanying illustrations.

It seems a pity that this record unique New England collection should be separated. Efforts have been made to obtain them for the Historical Society of Vermont, in whose possession they might be appropriately remain. With the hope that they will be kept together, they are offered as an entire collection from No. 10 to No. 365.

For this collection, with a few modern coins, the finder received $300, and the upset price for which it is offered for competition is $450. If this sum is not offered, the objects will be sold separately, including the Roxbury tube, and a few trifles obtained by Mr. Dean from other collectors, Nos. 355, 365, 366, 380, 392.

STONE TUBES.

349 Tube. Swanton, Vt. Length, 15 inches, diameter, 1¼ inches. Smooth and beautifully polished. The perforation extends through its length, but not exactly in the centre. At one end it is central, at the other with an inclination toward the side. The first mentioned end is in exactly the shape of that of a lozenge cutter, absolutely perfect, except that the cutting end is a trifle nicked. From the edge toward the top the tube is regularly contracted; its diameter at the edge is about 1 inch: at the upper end ½ inch. The tube at its smaller end gradually enlarges towards the opposite end till near the top, whence it slightly contracts toward the edge. These tubes when first discovered were thought to be formed of indurated clay, but Prof. Perkins, who has submitted them to experienced potters, now believes them to be of stone. The smaller end, instead of a regular gradation, diminishes somewhat abruptly, forming a diaphragm near the opening: this opening was originally stopped by a plug of stone loosely fitting. All of the tubes had originally similar plugs, some of which had been wrought but slightly, if at all. The tube is represented in the articles referred to, page 76, fig. 8. The plug mentioned, fig. 12. Prof. Perkins states the length of the tube to be 13 in. Its actual length is 14⅞ ins.

350 The plug described in the last number, shown in figure 12, ante, not less remarkable than the tubes. The only one of the properly formed plugs remaining. Unique. ¾ x ½.

351 Tube. In general form resembling 349. Having all the marked characteristics of that one: bulging more in the middle and somewhat more contracted towards the upper end: the diaphragm contraction near the top is more marked than that. Referring to this tube, Prof. Perkins remarks, "Fig. 10 is especially interesting on account of certain markings upon

it. These are, so far as I am aware, the only marks that have been discovered upon any article taken from the graves. They are near the end of the tube, and consist of the outline marking of some bird, below which are three characters. These objects are engraved, or rather scratched on the tube, the scratches being somewhat irregular, and neither very deep nor wide; some are very fine. They are shown at full size in figure 11, and their position on the tube is shown in figure 10. "The bird, which resembles more recent delineations of the fish-hawk, and may have been intended for it, is 1.4 inches long, and .95 inches broad across the wings. The three characters below the bird are, as may be seen, made up of straight lines and dots, about $\frac{1}{8}$ of an inch high, and a little less broad." These marks quite nearly resemble letters of the Hebrew alphabet, but not one of them can be positively identified, though one differs but little from "he," or "hath." An article contributed by Prof. J. H. Perry, and contained in Vol. XII, pages 219, 221, of the proceedings of the Boston Society of Natural History, treats of "this find at length, and Prof. Perry is evidently much inclined to attribute to this tube, in particular, an Israelitish origin, or at least significance; but for reasons discussed in Prof. Perkins' article, the views by Prof. Perry seem by no means conclusive, and, as Prof. Perkins says, "Few indeed are they who will see in them anything suggestive of the mysterious religious ceremonies of Samothrace or the worship of Ceres at Eleusis. These tubes bear no evidence of having been acted on by heat, with the exception of one now in the State collection at Montpelier, which is blackened and cracked, as though for some time subjected to intense heat. None of these herein described are thus marked. One described is polished and perfect, only stoked, as in number 349, 9½ a. 14.

352 Stone Tube. Same general form as the two preceding, marked by a contraction at the ends and a gradual expansion in the middle, the diaphragm nearly closing the tube in the smaller end; the cutting edge is perfect. The beautiful polished surface of this tube is very noticeable. The material seems to be a homogeneous stone, but closely resembling a purple slate. Tube at the upper and more contracted than any of the others, perfect, the finest of those described. Swanton, Vt. Length $7\frac{7}{16}$ in., dia. $1\frac{1}{4}$ in.

353 Stone Tube. In general form scarcely differs from the preceding, except in dimensions: highly polished and perfect, the finest and most desirable tube of the lot, closely resembles in form a piece of modern artillery. Swanton, Vt. Length 12 in., dia. $1\frac{3}{8}$ in.

354 Stone Tube. Of the same general form, but the smallest of the five, to which it bears a general resemblance in all particulars, except that the cutting edge instead of being circular is slightly oval and the smaller end is much contracted. The surface of this tube is nearly covered with a series of minute markings, or incomplete perforations; as perfect as the two last. When blown through, all these tubes emit harsh sounds resembling fog horns. The pitch of the tones differs from each other by a single octave. Referring to them as instruments of music, Prof. Perkins says: "Either the art of playing upon them has sadly deteriorated or the musical taste of the makers was not regulated by existing standards. It is possible that connected with some parts now lost, these tubes may have served as musical instruments, and then a savage yell sent through one of them may have been sweeter to savage ears than the music of our finest instruments." Swanton, Vt. 7 long by 1 in. diameter.

355 Stone Tube. This tube of the exact character of those heretofore described, is believed to be the only one of the kind known, excepting those of Vermont. It scarcely differs from those found in Swanton, either in character or workmanship. It can only be described as less tapering: it is equally fine in finish. It was discovered several years ago when digging a cellar on the estate of Mr. Charles Erskine, of the Erskine's Panorama of the Wilkes Exploring Expedition. Mr. Erskine was a member of that Expedition, who accompanied it from its departure to its return, and is believed to be the only surviving member. The tube is fine and perfect but for some nicks in the cutting edge, and unfortunately it is broken about the middle, the lost fragment, unnoticed by the workman was probably thrown into the waste earth from the cellar, and unfortunately lost. It is an interesting fact that no other objects of antiquity were found while excavating the cellar, not even a bead or an arrow point,—such things having occasionally been discovered in the vicinity. Roxbury, Mass. 6 x 1.

PERFORATED OBJECTS.

356 Amulet. Animal-shaped carving. What animal is intended it is hard to say. The head and neck are bird shaped; at the same time, though not much like it, it suggests manatee, or dugong; at each end, almost perpendicular to the figure, is a perforation; eyes large and very prominent; material of pale metamorphic slate, while one side of the head is of light green; base flat, length 3 in.; height 2½ in. Swanton, Vt. Altogether the most curious and interesting object found in this deposit. Beautifully finished, highly polished, and the most remarkable of this class of objects that I have ever met with.

357 Gorget, in form approaching ovoid shape. Has two perforations exactly resembling those in the last-described object, the perforations of equal distance and following the same line of direction. Persons who have examined them have frequently come to the conclusion that they are parts of a single one. Very fine and most desirable, particularly as a companion piece to the last, which it resembles in material and fine workmanship. 7 ½ x 3.

358 Gorget, slightly grooved at the upper side; lower side rectangular, of 4 faces; purple metamorphic slate, equal in quality to the two preceding. Fine and highly polished. 5½ x 1¼.

359 Two-holed Gorget. Prof. Perkins says: "By far the finest of these two-hole stones is one in Mr. Dean's collection. It is of oval form, with the ends cut squarely off, and is wrought with admirable skill, the curvature of the sides being very regular, and that of both exactly the same. The ends are straight and true, and the flat sides regularly curved. The color of the stone is of a dark reddish brown, and the surface appears to have been originally coated with some black pigment, patches of which still remain, leaving spots of smooth glossy enamel. The holes are bevelled from one side only, and are nearly twice as large on that side as on the other. It is 3.5 inches long, .5 inches thick near the middle, 2 inches thick at the ends, and 2.5 broad in the middle. No finer wrought object is found in the Swanton collection. 2½ x 1.

360 Gorget, rectangular, one end a little broader than the other. Purple slate. Swanton, Vt. 2¼ x 2¼.

361 Gorget, with two holes, in general form resembles No. 359, but instead of the edges being but one continuous curve, they have a shallow notch at opposite sides extending on each side ¼ of the length. Dark reddish stone, polished, very handsome. Swanton, Vt. 3¾ x 2⅛.

362 Canoe-shaped object. On one side grooved and showing a deep depression: through the bottom two countersunk holes with a third perforation apparently begun at the bottom. Of fine green steatite, has been very finely polished, but is slightly disintegrated. 4⅜ x 1½.

PIPES.

363 Duck-bill mound-builder's Pipe, stem and bottom perfect, bowl broken off. From Swanton, but not from the ancient graves. Beautifully polished. 3 x 2¼.

364 Bird-head pipe, polished, very fine and *rare*. From Alburgh, very near to Swanton, Vt. 2⅜ x 2.

365 Ancient Pipe, received by Mr. Dean from Kansas. This pipe reminds one, very strongly, of the remarkable egg-shaped object found at Lake Winnipiseogee, N. H. On one side the pipe bears a tent or wigwam, at the open door of which appears a seated Indian; over the surface of the stone are seen numerous incised lines which are, without doubt, ancient, one of which appears to represent an animal, another a bow and arrow: still another a recumbent animal, and various other forms are readily made out. The Lake Winnipiseogee object, described by Abbott in his "Primitive Industry," and for which the owner is said to have refused $1500, seems scarcely more remarkable than this pipe, which is 3 x 2 inches and perfect. It is of light-colored, quartz-like stone.

366 Pipe. Graceful, prettily finished, from Wisconsin. Received from the archaeologist, J. R. Rust. Square, with bevelled edges, exterior ornamented. 2½ x 1¼.

AXES.

367 Large ungrooved Axe, of bluish green slate. Axes in northern Vermont are of rare occurrence. Swanton, Vt. 7½ x 2¾.

368 Ungrooved Axe, much like the Carib or West India form. Fine. Swanton, Vt. 6 x 2½.

369 Ungrooved Axe, in form resembles the last. Mica slate. Swanton. 8 x 2½

370 Ungrooved Axe, dark green slate; very good. Swanton, Vt. 5½ x 2½.

371 Ungrooved Axe, slate, thin. Swanton, Vt. 6 x 2½.

372 Ungrooved Axe, of dark ferruginous ore, like hematite, Fine. Swanton, Vt. 5 x 2½

373 Ungrooved Axe, surface specked with iron, one flat concave. Swanton, Vt. 6 x 2½

374 Ungrooved Axe. Found by L. L. Dow, on his meadows at Highgate, Vt. Fine. 7 x 2½.

375 Ungrooved Axe, slate, thin. From the *Frink* ground. 6 x 2½.

376 Ungrooved Axe, iron ore, edge polished. Swanton, Vt. 5½ x 2.

377 Ungrooved Axe, marked with red or brown pigment. 3½ x 2½.

378 Small, handsome ungrooved Axe, partly polished; fine. Swanton, Vt. 2½ x 1½.

379 Celt or Skinner, partly polished. Hall Collection. Swanton, Vt. 3½ x 2.

380 Grooved Axe, partly polished. A New England grooved axe is always a scarce implement. Duxbury, Mass. 5 x 3

381 Grooved Axe, hematite; thought by the finder to have received its discoloration from the sand with which the graves were filled. See No. 382, polished, very rare. Swanton, Vt. 4½ x 2½

382 A Bottle filled with colored sand, obtained from the graves surrounding the bodies at Swanton, believed to be hematite, ground and mixed with water and poured into the grave. A quantity of similar sand or pigment was found in contact with two skeletons dug up opposite the head of Woodward Ave., Dudley St., Roxbury, a year or two ago. These skeletons, with a quantity of the pigment, may be seen at the National Museum of the Smithsonian Institution, Washington.

383 Ungrooved Axe of red ore. Swanton, Vt. 6 x 2.

384 Polished Gouge, whole length deeply concave; very fine and rare. Swanton, Vt. 6 x 1½.

385 Gouge, deep concavity extending the entire length. The gouge is well known to be a rare implement when found away from New England, thick. Swanton, Vt. 6 x 1½.

386 Large polished Gouge, or Adze-gouge, with groove. The rarest form of gouge. Swanton, Vt. 7¼ x 2¼.

387 Polished Gouge, end broken. Hall collection. Swanton, Vt.

388 Gouge of light silicious rock; broken, but a fine fragment. Hall collection. Swanton, Vt. 4½ x 1¾.

389 Digging Implement, iron ore, in its markings resembling silurian slate: *rare* material. Swanton, Vt. 4½ x 2½.

390 Tablet, metamorphic slate. Swanton, Vt. 4½ x 2.

391 Tablet; material polished. Swanton, Vt. 4½ x 2.

392 Sinker. From the Cowing Collection. Seneca Falls, N. Y. 2 pcs.

ARROW AND SPEAR POINTS.

In the Swanton graves were found the following objects, comprising arrow points, spear heads, etc. All are deemed worthy of separate descriptions, but for want of space the room cannot be afforded. Prof. Perkins speaks of general differences between these objects and others from different localities, — the particular marked difference being that they are generally thinner than those observed in other places. They are of various forms, triangular, leaf-shaped, etc., and the differences which Prof. Perkins has noticed do not seem obvious to the present observer as representative of this remarkable find. Most of the arrow points are grouped together and offered as a single lot.

393 Large Spear Point, bevelled at one side, reddish quartz. Fine and *rare*. Swanton, Vt. 3 x 1½.

394 Spear Point, triangular, with serrated edge. Swanton, Vt. 2½ x 1½.

395 Large Spear Point. Near the base it bears nine deeply cut tally marks. Swanton, Vt. 7⅝ x 2⅝.

396 Large Spear Head, or Knife, material purple stone. Fine. Swanton, Vt. 4½ x 2¼.

397 Large Spear Point of red jasper, base square and chipped to a thin edge. Swanton, Vt. 6⅛ x 2⅛.

398 Elliptical Spear Point, edge slightly serrated; very fine. Swanton, Vt. 6 x 1¾.

399 Spear Head with square base; Swanton, Vt. 5 x 2.

409 Spear Point, edge deeply chipped, narrow stem. From the Hall collection. Swanton, Vt. 3¾ x 2½.

401 Spear Points, a variety, eight with square bases, and of good size; one of quartz or chalcedony with hollow base, a number with stems, some notched. 13 pcs.

402 Arrow Points, six with square bases, five triangular, 1 nine in form of scrapers, five others different. In all 25 pcs.

403 Trapezoidal or diamond shaped stone, has been rubbed, and is slightly polished. These stones seem to have contained fossils which have disintegrated. 6½ x 1½.

404 Skinner or Ungrooved Axe, of polished serpentine. Swanton, Vt. 5 x 2½.

405 Water-worn Pebble, oval in form. Swanton Vt. This is the stone referred to by Prof. Perkins as weighing 1 lb.; its weight is exactly 15½ oz.

406 A hemispherical smooth polished stone. I am informed that this stone formed part of an Algonkin maker's kit or assortment of tools, among the Indians. To the unlearned man it is not easy to perceive to what use it was applied. Nearly a hemisphere, nicely finished. Swanton, Vt. 1 x 2½.

407 Banner Stone, butterfly-shaped, with two wings. Found by Dr. W. Burdoo on A. N. Clark's farm. Has been cracked and neatly cemented; very fine indeed and *rare*, has large fine perforation. Swanton, Vt. 4½x2.

SHELL BEADS.

408 A number of perforated beads of the columellae of the strombus and other large univalve shells, have been found in the different graves at Swanton. They are usually perforated fairly through the long diameter, but several show a peculiarity that I have not elsewhere observed, consisting of one or more perforations at right angles to the principal one and ending therein. The collection consists of fourteen of these beads, mostly varying from ¼ to ½ inch in diameter. Three exhibit the peculiarity just mentioned in perforation, which is lacking in the larger specimens. Two of these are handsomely polished.

COPPER IMPLEMENTS.

409 Far rarer than stone or shell implements are those of copper found within the limits of the United States. It is probable that the entire findings from the Atlantic and Middle States would very little exceed a dozen pieces in number. Of these, several have been discovered in the Swanton graves. Two of these are described by Prof. Perkins, and illustrated in his plates. One, a chisel, triangular in form, or rather pointed at the top, with two longitudinal grooves; length, $5\frac{5}{8}$ in., width, $1\frac{1}{4}$ in., tapering nearly to a point at the opposite end; both sides longitudinally grooved. Prof. Perkins believes this instrument to be the projecting portion of a war club. When found it had portions of woody fibre adhering to it, the marks of which are still visible. The weight of the object is between seven and eight ounces; it is an admirable specimen, covered with a thick ancient patina.

410 Copper Implement. In form double pointed, and resembling a square-shaped spike, patinated and wrought. One end bears a resemblance, probably quite fanciful, to the head of a rattlesnake. Length, 5 inches, $\frac{1}{4}$ inch in diameter on its several surfaces: *extremely rare.*

411 Prof. Perkins, in his article on this find, gives a particular account of certain copper tubes at page 82. These tubes are formed of thin involuted plates of copper rolled together. They are all of small diameter, say .2 to .3 inches: in length, the fragments vary from .5 to 2 inches. The following are less than $\frac{3}{4}$ of an inch in length: no suggestion is made as to the use to which they were applied; they are very neatly made, but bear evidence of hard usage. Native copper, surface patinated with green. 2 pcs.

BURIAL MOUND POTTERY FROM CENTRAL AMERICA.

A rare and interesting collection of prehistoric pottery, from Costa Rica, Central America. Objects in pottery, carved stone and fragments. Taken from the ancient Indian graves at Guatozo, about three leagues from Cartago, and from the place called Turrialba. They are the work of Indian tribes of that region, all of whom became extinct between two

hundred and three hundred years ago. A portion of these are from Nicoya, El Sardinal, situated along the Pacific shore in Costa Rica. This pottery and these stone objects are only found in graves; their authenticity and genuineness is vouched for by official documents of the Costa Rica government, signed and sealed under oath by the collector and attested by numerous official signatures, including that of the United States consul. The specimens here offered are representative, and illustrate the various classes into which the collection is naturally divided. The different classes are illustrated on the photographic plate referred to in the preface. The collection is a consignment to Frederic Stearns & Co., of Detroit, Mich., on whose account they are now sold.

The diversity of the collection appears remarkable as no two objects are precisely alike. The pottery is ornamented in various ways, some in raised figures, after the manner of majolica, some in painted figures of various colors. Portions are glazed, some including yellow and red. The material is rather fragile, much of it resembling pottery from the western mounds.

References to the photograph named are by numbers, but it must be understood that the numbers mentioned do not portray the exact specimens, only that they represent classes instead of particular specimens, and afford a very fair representation of the leading objects to be seen in the collection.

412 Jar, or Vase of dark terra cotta. Perfect and very fine. Diameter, 6 in.; height, about the same; capacity, nearly 2 quarts. (Fig. 1)

413 Jar, or vase, of less size, with smaller opening in proportion. 5 x 4½. (1)

414 Jar, or vase, opening less flaring. A raised ornament appears, like the head of a small animal; fine, but the edge a trifle nicked. 4½ x 4. (1)

415 Similar, marked with red glaze; very fine. 3½ x 3. (1)

416 Similar, a little smaller than the last, purple glaze, marked like the last with black lines. Almost all these objects numbered 1 are in shape nearly identical with the Yankee bean pot found in New England. Extra fine. (1)

417 Like the last, but the smallest in the lot: 2 inches in diameter.

418 The same, size about like the last, bears one of the head-like ornaments of 414: the ornament is, in this case, probably like an animal's, or, it may be, a man's head. (1)

419 The same, below the opening marked with three groups of raised, scroll-like ornaments; their significance not quite clear; fine: disintegration commenced. 3 x 3. (1)

420 Same, with the addition of a broad flattened handle, and with a series of raised ornaments surrounding the opening; terra cotta, fine. 3½ x 3¾. (1)

421 Jar, or Vase, same type as the preceding, the opening expanding largely below the body, above contracting, without raised ornaments, a little chipped, otherwise perfect. 5½ x 6. (1)

422 Terra cotta Rings or Stands, apparently to support vessels. The top opening, ornamented with raised ornaments like animals' heads; fine and a very unusual form. (2)

423 The same, with a series of raised ornaments surrounding, just below the brim; of coarse material, but neatly made.

424 Jar or Vase of the general form of No. 1, but having a broad, stout handle on either side; terra cotta, has been burned. 5½ x 4. (3)

425 Tall, globular Jar or Vase, standing on three expanding hollow feet, body nearly globular. Open at the top like No. 1, bears numerous raised ornaments; dark terra cotta, edge somewhat damaged, in all other respects fine. (4)

426 Like the last. Ornamented with incised lines, broken off at the bottom; but for the defect mentioned would be fine. 4 x 6. (5)

427 General form like the last, but has handles at the sides, three hollow legs, two broken. This is from Peru.

428 Large kettle-shaped Vase. Opening very broad, supported by three hollow legs, each of which is perforated through the side; yellow, with dark perpendicular lines: fine, and a *rare* form. 6 x 5½. (5)

429 Like the last, with handles and legs marked with colored ornaments, black and white: red terra cotta. 6 x 4½. (5)

430 Form like the last, differently ornamented; black terra cotta. 5½ x 4. (5)

431 Similar, with perforated legs and raised ornaments; red terra cotta. 5 x 4½. (5)

432 Like the last; coarse terra cotta. (5)

433 The same, considerably broken. 4½ x 3½. (5)

434 The same, has a number of grotesque or hideous animal ornaments. 4 x 4. (5)

435 Like the last and characterized by similar ornaments; red terra cotta. (5)

436 Raised on three legs, has handles and projecting ornaments. 3½ x 2½. (5)

437 With three legs and raised ornaments; fine. 4½ x 3. (5)

438 Ladle-shaped vessel, its handle a serpent; like unglazed terra cotta. 6½ x 4½. (8)

439 Pot or kettle-shaped vessel with broad spouting, supported on three legs and with four projecting handles; terra cotta, painted with black and red, interior has reddish glaze; fine. (9)

440 Kettle-shaped open-mouthed Vase, on three hollow legs, perforated in the manner of 428; brown terra cotta, very fine. 5½ x 5½. (9)

441 Like the last in general form, has three raised legs and four projecting handles; terra cotta, inside of light red. (9)

442 Same general form with three long hollow legs; terra cotta, shows disintegration. 5 x 5½. (9)

443 Form like the last, but more elaborate in ornamentation, on three hollow legs, red terra cotta. 3½ x 4. (9)

444 Large kettle, or bowl-shaped Vessel, terra cotta, ornamented with black, large and fine. 6 x 5½. (10) Specially figured on the plate.

445 Another bowl-shaped object, ornamented with lines inside and out; fine and rare. 6 x 2½. (10)

446 Another bowl-shaped object, but its concavity is less regular; of reddish terra cotta. Shown on the plate as No. 10. 6 x 2½.

447 Bowl-shaped vessel of the same form, ornamented with a broad red stripe around the edge; terra cotta, very fine. 4½ x 2½. (10)

448 Bowl-shaped vessel; terra cotta, less elaborate than the last, but fine. (10)

449 Similar, contracting at the top, top chipped; rough terra cotta, without ornament. 5 x 3. (10)

450 Like the last, top contracted, very fine, terra cotta. 3½ x 2. (10)

451 The same, like the two preceding, the top is drawn in, bears some raised ornaments and some in color, terra cotta. 4 x 2. (10)

452 A human-headed object, doubtless originally a foot or handle of one of the jars or vessels, contains a rattle, shows on the plate, very fine. (13)

453 Foot, like the last, a head bearing some resemblance to the human, still fearfully and wonderfully made; fine. 3¼ x 2. (13)

454 Foot or leg like the preceding, bears a remote resemblance to a human head, contains a rattle. 3½ x 2¼. (13)

455 Another Handle or Foot. A grotesque human head. 4 x 2. (13)

456 Handle. The end of this resembles the head of a serpent or perhaps somewhat the handle of a sword. (13)

457 Foot or Whistle, in form of parrot, distinct in tone; terra cotta, fine and pretty. 3 x 2. (15)

458 Foot or Handle of a large dish, presumed to be modeled after the Costa Rican Venus; terra cotta ornamented with black, fine and *rare*. 5 x 3. See plate. (16)

459 Fragments of American burial pottery, shows variety in ornamentation. 11 pcs.

460 Metate, modelled after a tortoise or some reptile, the top spread out and hollowed. From its resemblance to a cat-like animal it is thought this object may have been modelled from a puma, the tail probably forming a handle opposite the head. (21)

461 Metate, of calcareous tufa or lava, supported by three legs, top and bottom covered with arabesque ornamentations, without handles. A scarce object in this form. Length, 15 in., breadth, 7¼ in. (23)

462 Celt, of light-colored granite, thick and heavy, fine. 5 x 2¼. (24)

463 Celt, slimmer and thinner, fine. 4¾ x 2. (24)

464 Polished Stones from the Costa Rican graves; waterworn, but doubtless preserved on account of their beauty. 10 pcs.

MISCELLANEOUS OBJECTS.

Selected from various cabinets: Ralston, Spang, Linney and many others. Arranged only with reference to localities.

465 Grooved Axe, large oval, granite. Milwaukee, Wis. 6¼ x 4.

466 Grooved Axe, in almost natural form. Illinois. 6½x5.

467 Grooved Axe of light sandstone. Ohio. 4¼ x 2½.

468 Grooved Axe, one edge slightly grooved longitudinally. Indiana. 4½ x 2½.

469 Grooved Axe, one edge flattened, sides parallel, top nearly square. Kentucky. 6½ x 2½.

470 Grooved Axe. Norristown, Pa. Found on Mr. Rebstein's land. 5 x 8.

471 Grooved Axe, light granite. New Jersey. 4 x 2½.

472 Elongated Grooved Axe, shaped like a post axe. New Jersey. 10 x 3¾.

473 Grooved Axe, elongated, bit pointed. From Lehigh Valley, Pa. 10½ x 4½.

474 Large Grooved Axe, deeply grooved, with ridges above and below. From the Woolby collection, New Jersey. A very curious axe and a curious form. 8½ x 5½.

475 Small Grooved Axe of light granitic rock. Pennsylvania. 4½ x 3½.

476 Grooved Axe of light sandstone. From Pennypacker collection. 4½ x 2½.

477 Grooved Axe or Sinker. 6 x 2½.

478 Grooved Axe, thin, with broad and shallow groove. 4 x 4½.

479 Grooved Axe of fine dark stone, nearly polished, groove deep and broad; fine. West Va. 4½ x 3½.

480 Grooved Axe, nearly round, narrow, shallow groove. West Virginia. 4½ x 2½.

481 Flat, Grooved Broadaxe. West Va. 4 x 2.

482 Grooved Axe, light sandstone. West Virginia. 4½ x 2½.

483 Grooved Axe, metamorphic slate. From Ohio. 3½ x 6.

484 Grooved Axe, disintegrated by great age. Ohio. 4 x 2½.

485 Grooved Axe, rudely made. Ohio. 4 x 5½.

486 Grooved Axe, light granite. Ohio. 3½ x 2¼.

487 Grooved Axe, shows secondary use as a hammer. W. Virginia. 2½ x 2.

488 Long Double Grooved Axe, bluish slate. W. Virginia. 5 x 2½.

489 Small Grooved Axe of light granite. W. Va. 3 x 2.

490 Small Grooved Axe, broken above the groove; sandstone. Norristown, Pa. 5½ x 2½.

491 Grooved Axe, thin, sides nearly parallel. Found near Milwaukee, Wis. 5½ x 2½.

492 Fine large Grooved Axe: broken below the groove or would be very fine. Alleghany Co., Pa. 2½ x 3.

493 Grooved Axe, usually called by European archaeologists an axe with a handle. Of very ancient workmanship. Scandinavia. 4 x 17.

494 Large Grooved Axe. From the Spang Collection. Large but somewhat broken. Northwestern North Carolina. 7¼ x 4¾.

495 Grooved Axe of light slate. Ohio. 5 x 2¼.

496 Large Axe with shallow groove, defective. North Carolina. 5 x 5.

497 Grooved Axe, size much diminished at the groove, broken. 3 x 3¼.

498 Grooved Axe, dark slate, has been used as a hammer.

499 Small Grooved Axe, nearly pointed, has seen service as a hammer. North Carolina. 3½ x 2.

500 Grooved Axe or Hammer. 2½ x 3.

501 Large Grooved Axe, bit broken. Ralston collection. Pa. 8½ x 5.

502 Immense Grooved Axe or perhaps an anchor, to which it is better adapted than to use as an axe. 12 x 10.

503 Grooved Axe of nearly black stone; fine. Ralston collection. 9 x 4¼.

504 Grooved Axe, triangular. 4 x 3½.

505 Grooved Axe, groove near the top. Penn. 5 x 3.

506 Grooved Axe, groove slight, dark sandstone. Central Pa. 4½ x 3.

507 Grooved Axe, broken. Pa. 3½ x 3.

508 Grooved Axe, dark granite, rude, but still fairly finished. Pa. 4¼ x 5.

509 Grooved Axe of bluish slate. Pa. 4 x 2½.

510 Small Grooved Hammer. Pa. 3 x 2.

511 Smaller Grooved Hammer. New Jersey. 2½ x 2.

512 Grooved Axe, compact, but light-colored bog iron ore. Pa. 4½ x 3½.

513 Grooved Axe. South Carolina. 3½ x 3.

514 Grooved Hammer, good. 3 x 2.

515 Large Grooved Axe, much like No. 465. Wisconsin.

516 Grooved Axe, small groove, broken. 6 x 3.

517 Grooved Axe, narrow and thin. Wisconsin. 7½ x 3¼.

518 Thin Broad Grooved Axe, narrowest toward the bit. Wisconsin. 7 x 4.

519 Grooved Axe, slate. Missouri. 5½ x 3.
520 Grooved Axe of dark syenite. Ohio. 4 x 3.
521 Grooved Axe, slate. Ohio. 7½ x 3½.
522 Grooved Axe, bit broken. Ohio. 6 x 3.
523 Grooved Axe, top neatly pointed. S. Carolina. 5½ x 2½.
524 Grooved Axe, top broken, but was originally very fine. Wisconsin. 5 x 3½.
525 Grooved Axe, blue slate, groove diagonal to the surface. Ohio. 6½ x 3½.
526 Grooved Axe, metamorphic slate. Ohio. 7½ x 3.
527 Grooved Axe, rude. Lehigh Valley, Pa. 6½ x 4.
528 Grooved Axe of coarse ferruginous ore. Pa. 7 x 4½.
529 Grooved Axe, one flat broken. 5½ x 3½.

CELTS.

530 Large handsome polished Celt, material almost black, head broken. Lake Superior region. 7 x 3½.
531 Fine Large Celt. Wisconsin. 6½ x 3½.
532 Skinner, or Celt, dark granite interspersed with lighter colored, fine. Michigan. 6 x 2½.
533 Handsome Polished Celt, top broken. 6 x 2½.
534 Celt or Skinner of green stone, fine. 5 x 2.
535 Celt, thin and finely finished. Michigan. 6 x 3.
536 Celt, of fine light granite, top square. Spang collection. 4½ x 2.
537 Small, handsome Celt; fine. Spang collection. 3½ x 2.
538 Broad, thick Celt. White Pine Co., Tenn. 4 x 3.
539 Slate Celt, polished. Kentucky. 3½ x 1½.
540 Polished Celt. Tennessee. 4½ x 2½.
541 Celt, with square top, slate. Lincoln Co., Tenn. 4 x 2½.
542 Polished Celt of black stone. Blunt Co., E. Tennessee; fine. 4 x 2½.
543 Polished Celt, resembles jasper. Kentucky. 4 x 2½.
544 Polished Celt. This, too, appears to be of jasper. Kentucky. 5 x 2½.
545 Celt. 4 x 2½.
546 Handsome Black Celt. 4 x 2.
547 Celt of light color, very good. 4½ x 2.

548 Round Celt, top broken, slate. Montgomery Co., Ark. 3 x 1½.
549 Polished Slate Celt or Skinner. 3¼ x 2.
550 Celt of light Breccia, fine. 4¼ x 2¾.
551 Celt, nearly circular, with sides flattened, fine. 5 x 2.
552 Celt, of heavy green slate, partly polished. 4¼ x 2¼.
553 Celt, granite. Ross Co., Ohio. 3 x 2.
554 Polished Celt. From mound on Little Pigeon River, Tenn. 5 x 2.
555 Celt, nearly triangular, top pointed; fine. Tennessee. 2¾ x 5½.
556 Celt. Ohio. 5 x 2¼.
557 Broad Fine Celt. Tennessee River, Clay Co., N. C. 4¾ x 2¼.
558 Polished Purple Celt. 4 x 2.
559 Triangular, nearly pointed Celt, polished. North Carolina. 3½ x 1½.
560 Celt, light granite. No. Carolina. 3¾ x 1¾.
561 Celt, very good. 3¾ x 1⅝.
562 Celt, thick, nearly triangular. W. Virginia. 3¾ x 2¼.
563 Celt. Walton, Ill. 3¾ x 2¼.
564 Celt, short and thick. 4 x 2.
565 Celt of purple slate. 3½ x 2½.
566 Celt of dark slate. West Virginia. 3½ x 2¼.
567 Curious Short Celt. Lincoln Co., Tenn. 2½ x 2½.
568 Celt of light granite. Tennessee. 3¾ x 2.
569 Flattened Celt. Tennessee. 6 x 2.
570 Pretty little Celt. Tennessee. 3¼ x 2.
571 Another pretty little Celt. Tennessee. 3 x 1¾.
572 Small Fine Celt. West Virginia. 3 x 1½.
573 Small Celt; fine. Ohio. 2½ x 1½.
574 Pretty little Celt. Trumbull Co., Ohio. 3 x 2.
575 Fine, slender Celt, polished. 3 x 1½.
576 Small Celt, with square top, neatly finished. 3 x 1½.
577 Fine, dark colored Celt, nearly polished. 3 x 1¾.
578 Celt, concave or curved at one side. 4 x 2⅛.
579 Thick Celt, with round top. 4⅛ x 2⅛.
580 Pretty Celt, with pointed top. 4½ x 2.
581 Celt. Trumbull Co., Ohio. 4½ x 2.
582 Celt, nearly ovate in shape. 3½ x 1¾.

583 Celt, with rounded top. 5¼ x 2.

584 Celt, rounded top, expands at the edge. 4 x 2¼.

585 Celt, partly polished. 4½ x 2¼.

586 Celt or Skinner, light breccia. 5½ x 2¼.

587 Large, broad Celt, with rounded top; fine and of uncommon size. Tennessee. 6½ x 3½.

588 Large Celt of fine-grained sandstone. Ga. 6¼ x 2¼.

589 Fine European Celt, purple stone resembling jasper. Most of the Irish celts are damaged by breaking; this is chipped but still fine and rare. Lough Neagh, Ireland. 5¼ x 3.

590 Round Celt, with rounded top; very good. Ky. 5¼ x 2½.

591 Large Irish Celt; a little chipped, but fine and *very rare*. County Tyrone. 7 x 2½.

592 Granite Celt; fine, but top broken. Harmer, Ohio. 5½ x 3.

593 Granite Celt, edge polished. 3¾ x 1¼. W. Va.

594 Metamorphic Celt. Oneida Co., N. Y. 4 x 2½.

595 Celt, light granite. Ohio. 3½ x 2.

596 Celt, thin, of light sandstone. West Va. 4½ x 2½.

597 Small Celt of nearly black slate, polished. N. C. 3¼x1¼.

598 Celt, metamorphic slate, nicely polished. 2½ x 1½.

599 Celt of reddish stone, nicely finished. 2 x 2.

600 Celt, Carib pattern; fine. Dawson Co., Ga. 5 x 2¼.

601 Celt or Skinner, slate. Madison Co., N. Y. 5½ x 2.

602 Good slate Celt; fine for an Irish celt. County Tyrone, Ireland. 5 x 2¼.

603 Celt, jasper, broken. Ohio. 1½ x 1½.

604 Red jasper Celt, polished; fine, scarce. Big Creek, Ga. 3½ x 1½.

605 Small Celt, edge ground off; fine. Swain Co., N. C. 2½ x 1½.

606 Celt, almost the duplicate of 599; fine. 2¼ x 2.

607 Celt, nearly round, with square top. West Va. 4¼ x 2.

608 Oval Celt of light granite. Ohio. 4 x 2.

609 Small granite Celt. West Va. 4 x 2½.

610 Celt of greenish fine-grained granite, rounded top; fine. N. C. 4½ x 2.

611 Celt, black slate, Carib form. N. C. 4½ x 2.

612 Celt, pointed top, and polished. N. C. 5¼ x 2.

613 Thick granite Celt, edge polished. West Va. 3 x 2.

614 Celt, resembles the European celt, usually described as an axe with a handle. West Va. 6 x 2.

615 Rude Celt of metamorphic slate, shows markings very distinctly. 4⅗ x 2.

616 Granite Celt, top broken. Eastern Ohio. 3 x 2½.

617 Rudely-wrought coarse-grained light granite Celt. Ohio. 3⅘ x 2¼.

618 Dark Granite Celt, top nearly square. West Virginia. 3½ x 2.

619 Polished Slate Celt; fine. 3¼ x 1½.

620 Celt, metamorphic slate, edge polished. West Virginia. 6 x 2.

621 Celt, of light granite. 5¼ x 2¼.

622 Celt, of dark breccia, edge polished. 5 x 2.

623 Celt, or Skinner, of somewhat gouge form, greenish fine grained stone.

624 Short thick Celt, from Pennypacker collection. 3¼ x 2.

625 Oval Celt of light fine grained granite. 4¼ x 2¾.

626 Celt, slate. 5½ x 2½.

627 Celt. West Virginia. 5 x 2.

628 Celt. West Virginia. A line cut round near the end; fine. 3¾ x 1½.

629 Celt, coarse granite. 4½ x 2.

630 Celts. An assortment of medium size and above, from various locations, a good lot. 10 pcs.

631 Another assortment, will average a little larger and better. 7 pcs.

632 Celts, similar quality, from various American locations. 13 pieces.

The following, 633 to 639, were bought by Mr. Bliss, and not paid for, at the Wagman Sale, and were afterward returned to me.

633 Celt, disintegrated flint. 6[1] x 2⅗.

634 Adze Gouge of light granite; broken or would be fine. 7 x 2.

635 Large Celt; very fine indeed. 6⅗ x 2⅗.

636 Sandstone Gouge, head broken. 5 x 2½.

637 Partly polished Celt. 4½ x 2½.

638 Long thin slate Celt, broken at the point. 7 x 2½.

639 Celt, one side partly polished and flat. 5 x 2.

GROOVED HAMMERS

The grooved hammer, when finished as a hammer, is much scarcer than the grooved axe.

640 Hammer, grooved, tops rounded. 2½ x 2.

641 Grooved Hammer, one edge nearly square. 2½ x 2½.

642 Grooved Hammer, one end flat. 3½ x 2½.

643 Grooved Hammer, one edge grooved longitudinally. 3½ x 2.

644 Grooved Hammer, both edges rubbed flat. 3½ x 2½.

645 Grooved Hammer, one side flat, top rounded, bottom nearly pointed. 3½ x 2½.

646 Grooved Hammer of fine grained granite, one end round, the other nearly pointed. 3½ x 2½.

647 Grooved Hammer, longitudinal groove at one end, finely finished. 2 x 2½.

648 Grooved Hammer, worn by secondary usage. It was first an axe. 2½ x 2½.

649 Grooved Hammer, coarse light granite, almost barrel shaped, fine. 3 x 2.

650 Grooved Hammer, grooved near one end. 3 x 2½.

651 Grooved Hammer, perhaps a sinker, the groove only shows marks of working, nearly hemispherical, diameter about 4 in.

652 Grooved Hammer, wrought all over, nearly globular, diameter 2 in.

653 Hammer, globular, ends flattened. 2 x 2.

ARROW POINTS AND SPEAR HEADS

The following list comprises a vast collection, no less than 3000 pieces in number, and they illustrate most of the forms of chipped implements of the material usually designated as flint, — a material most common to Europe, but the existence of which amongst American prehistoric relics is hardly admitted. The collection comprises a vast number of spear heads, in size from the smallest, to six or seven inches long. Amongst arrow points will be found nearly all the known forms and varieties, including the lozenge and leaf forms, rhomboidal, triangular, serrated, notary, barbed and curved. Nearly every material of which these objects are made is represented here, including chalcedony, opal, onyx, crystallized quartz, rose quartz, obsidian, slate, and numerous other

materials. The number of these objects is so great, and life is so short, that no attempt is made to describe — even classes and locations are not given further than to say that nearly every American locality is represented from Maine to California, and from Greenland to Central America. Beside spear heads and arrow points, bunts, knives and scrapers are well represented. All are neatly arranged on cards. The closing figures give the number of objects on each card.

654 Large handsome white Spade. Osage Co., Mo. 4½ x 2.

655 Arrow Points, with a few obsidian knives, etc. 31.

656 Large Spear Heads, knives and agricultural implements. North Carolina, Missouri, etc., good lot. 17.

657 Arrow Points, many varieties, mostly from Ohio. 32.

658 Spear Heads. Arrow Points, etc., several are fish spears. 21.

659 Spear Heads, mostly large, several of odd forms.

660 Drills, nearly all good. A fine drill is always a searce objeet. Many materials and localities. 28.

661 Drills, and a few scrapers, quality like the last. 24.

662 Arrow Heads, fish spears, etc., fine lot. 13.

663 Arrow Heads, of small size, very fine lot. 35.

664 Arrow Heads, small, very fine, many are jewelry points, so-called. From Oregon. 44.

665 Bird Arrow Points, mostly jewelry points of jasper, carnelian, etc. From Oregon. 47.

666 Arrow Points, glass, made by the Connecticut "Bottle Jack." Very fine and of singular shapes. 9.

667 Large Spear Head and arrow points, fine. Many of this lot, and of others, are marked with ink on the objects themselves. 35.

668 Arrow Points, with a number of Spear Heads, fine lot. 57.

669 Arrow Points, with a few bunts and unsymmetrieal points, fine. 21.

670 Arrow Points, small and medium size, fine. 58.

671 Arrow Points and Spear Heads, many of the latter are fish spears, fine. 36.

672 Arrow Points, Spear Heads, Drills, etc., mostly large size. 30.

673 Arrow Points, Spear Heads, Bunts and Knives. 51.

674 Spear Heads and Arrow Points, large and small, fine. 41.

675 Arrow Points, mostly small and of medium size, many marked with locations, fine lot. 50.

676 Fish Spears, etc., very good lot. 26.

677 Spear Points, a number bevelled, fine lot. 25.

678 Arrow Points and Spear Heads; bevelled, serrated, and fish spears, fine lot. 29.

679 Spear Heads and Arrow Points, some rare forms; fine. 25.

680 Spear Heads, Fish Spears, etc., some scarce varieties. 25.

681 Spear Heads, one from California. Good selection. 15.

682 Spear Heads, and Arrow Points, the latter very small notched, serrated, etc. 24.

683 Spear Heads, several are fish spears. 23.

684 Spear Heads, bevelled, serrated, &c.; good. 17.

685 Arrow Points, a variety; good. 18.

686 Spear Heads, Middle Osage region. One rare form with edge parallel; fine. 38.

687 Spear Heads and Arrow Points; fine. 14.

688 Arrow Points, one dagger-shaped; fine. 26.

689 Spear Heads and Arrow Points; fine. Chester Co., Pa. 7.

690 Drills, several very good, a number of scarce form. 35.

691 Spear Heads, Fish Spears, &c., some very large; good. 24.

692 Arrow Points; fine. 32.

693 Arrow and Spear Points, Osage Region, Mo. 31.

694 Agricultural Implements or Spades, Missouri; a good lot. 12.

695 Arrow Points of white quartz, Susquehanna Valley, Pa. 27.

696 Arrow and Spear Points; fine. 26.

697 Spear Points and several Drills; fine. 17.

698 Arrow and Spear Points, mostly small; fine. 28.

699 Spear Points, Knives, &c.; good lot. 18.

700 Arrow Heads and a few Spear Points; fine. 30.

701 Spear Heads and Fish Spears, mostly fine. 13.

702 Large Knives; some very fine. 8.

703 Knives, a similar lot. 8.

704 Arrow Points, Oregon, obsidian, jasper, &c., many good jewelry points, fine lot. 64.

705 Fine Arrow or Bird Points, Oregon. 79.
706 Arrow Points, Drills, &c., Oregon; fine. 9.
707 Jewelry Points, obsidian, &c., Oregon. 22.
708 Jewelry Points, some extra large size, many from Oregon. 70.
709 Arrow Points, triangular points, etc. 30.
710 Spear Points; nearly all very fine. 27.
711 Spear Points; fine. 16.
712 Spear Points and Knives; fine lot. 8.
713 Spear Points and Arrow Heads, mostly from Pennsylvania. 38.
714 Arrow Heads and Spear Points; fine. 27.
715 Arrow Points, Oregon; many large and extra fine. 31.
716 Spear Heads, Fish Spears, Bunts, &c.; fine. 16.
717 Arrow Points, mostly fine. 44.
718 Spear Heads, Fish Spears, Bunts, &c. 20.
719 Spear Heads, one of beautiful flesh-colored stone; fine lot. 65.
720 Spear Heads; fine evenly assorted lot. 32.
721 Spear Heads. 24.
722 Spear Heads and Arrow Points; fine lot. 34.
723 Spear Heads, many are fish spears. 36.
724 Arrow Heads, evenly assorted for size; fine. 33.
725 Spear Points and Arrow Heads, large and small. 32.
726 Arrow Points, mostly of medium size; fine. 49.
727 Spear Points, mostly spear heads. 56.
728 Flint Knives, &c. 5.
729 Large Knives. 4.
730 Large Knives and Agricultural Implements, one polished, Osage Co., Mo. 7.
731 Spear Heads and Arrow Points; fine. 13.
732 Bird and Jewelry Points. Some of extra size; *rare*. These points are very rare indeed, no more can be obtained from any source of supply. 102.
733 Triangular long Arrow Point from Scandinavia. Arrow points from various portions of the U. S. are known to all collectors as being by far the most common of the pre-historic relics, while those from Northern Europe are strictly rare, and selling oftentimes from $1 or $2 to $5 each. This is a very rare example. In form it is flattened.

734 Arrow Points, some rare forms, among which is the bifurcated. 15.
735 Arrow Heads and Spear Points; fine. 16.
736 Spear Heads, fine; one superb specimen, doubly bevelled and serrated. 16.
737 Spear Heads, Fish Spears etc. 16.
738 Arrow Heads, mostly of light quartz. 25.
739 Arrow Heads, equally fine lot. 24.
740 Quartz Spear Heads; fine, scarce. 24.
741 Arrow Points and Fish Spears; fine lot. 33.
742 Spear Heads; very fine. 14.
743 Spear Heads and Arrow Points; fine lot. 28.
744 Spear heads and agricultural implements. Missouri. 18.
745 Selection resembling the last. Missouri. 15.
746 Similar selection, same locality. 23.
747 Spear Heads and Arrow Points; fine lot. 31.
748 Spear Heads and Knives, one of true flint and fine, one an ungrooved axe of hematite. 9.
749 Spear Heads; fine. 16.
750 Arrow Heads, mostly below medium size and fine. 41.
751 Spear Heads; fine. 17.
752 Spear Heads, a fine Drill and several quartz Arrow Points; extra lot. 24.
753 Fine, average, small Arrow Points. 27.
754 Arrow Points, mostly white quartz. 26.
755 Arrow Heads, nearly all dark chert. 24.
756 Arrow Heads and Fish Spears; fine lot. 27.
757 Lot similar to the last; equally fine.
758 Similar lot, equally good. 47.
759 Drills, nearly all fine and a rare lot. 34.
760 Spear Heads, Knives, and agricultural implements. Osage Co., Missouri. 25.
761 Large Knives, Spears, Sinker, etc.; good. 11 pcs.
762 Arrow Point and Spear Head, selected as beautiful stones. 2.
763 Arrow Points, serrated; fine.
764 Chalcedony Spear Head, beautifully flesh-colored. An elegant implement.
765 Spear Heads and agricultural implements. 18.
766 Spear Heads, several of ferruginous quartz, one of pink feldspar; fine lot. 21.

767 Arrow Heads and Spear Points; fine selection. 52.
768 Arrow Heads, mostly of quartz, several Spear Heads of dark chert. 40.
769 Arrow Points, various colors. 38.
770 Spear Heads; very fine lot. 27.
771 Spear Heads, Knives, etc.; fine lot. 25.
772 Spear Heads, mostly large and fine. 24.
773 Spear Heads and Knives, several *rare* forms. 15.
774 Spear Heads and Arrow Points, nearly all of quartz. 27.
775 Arrow Points, Spear Heads, etc.; fine lot. 21.
776 Spear Heads, Knives, etc.; fine. 8.
777 Arrow Points of small and medium size, triangular, barbed, etc., various localities. 22.
778 Similar lot, some curious bunts; fine. 22.
779 Similar lot; fine. Western. 22.
780 Equally good or better than the last. 30.
781 Another lot quite equal to the last, many localities marked; white and black in color. 29.
782 Arrow Points; a fine selected lot. 8.
783 Fish Spear; fine. New Jersey.
784 Large Spear Head of dark-colored quartz.
785 Small Arrow Points and bunts. Selected lot. 30.
786 Small Arrow Points, red jasper, white quartz, etc.; fine lot. 34.
787 Spear Heads and large Arrow Points. 15.
788 Bunts and Spear Points; fine lot. 31.
789 Scrapers, Bunts and Spear Points; extra lot. 27.
790 Small Arrow Points, very fine lot. 39.
791 Small Arrow Points and Bunts. 12.
792 Bunts, Scrapers and Arrow Points. 41.
793 Lance Heads, Daggers, Spear Points, etc. Several are from Scandinavia; all are fine and *rare*. 12.
794 Arrow Heads and Spear points; good lot. 34.
795 Small Arrow Points, Scrapers and Bunts, various localities, good selection. 48.
796 Spear Points and Scrapers, all of large size, various localities. 13.
797 Another lot of similar quality, one is a fine and large Drill, several are Fish Spears; fine lot. 16.
798 Spear Points, Scrapers and Bunts; fine lot. 29.
799 Spear Points, Arrow Points and Bunts; fine lot. 21.

800 Bird, jewelry points, several points of larger size, and a number of scrapers; all of the fine materials of which Oregon Points are made; *rare lot*. 60.

PERFORATED OBJECTS, PIPES, ETC.

801 Tube or Banner Stone, saddle-shaped, perforated; fine, *rare*. Ohio. $\frac{5}{8}$ dc dia.

802 Canoe-shaped object, broken, steatite; *rare*. 2¾ x 1¼.

803 Gorget, one side *latticed*, polished, broken through one *perforation*; rare. Ohio. 3¼ x 1¾.

804 Irregular Banner Stone; fine. Ohio. 1¼ x 1¼.

805 Gorget, metamorphic slate; fine. Ohio. 2½ x 1.

806 Perforated and notched Sinker, steatite; a rare object. California.

807 Triangular Sinker. 2½ x 1¼.

808 Sinker, perforated. 1½ x 1½.

809 Triangular leaf shaped Sinkers, steatite, may be modern; fine. 2 pcs. 2¼ x 1¼.

810 Pendant, with one large perforation, oblong, one end narrow. 3 x 2½.

811 Pendant, or single-holed Gorget; fine. Gwinnett Co., Ga. 5 x 2½.

812 Gorget, slate, fine. West Virginia. 3¼ x 1¼.

813 Irregular Banner Stone, with ancient markings. Chattahoochee River, Forsyth Co., Ga. Fine. 1¾ x 1¼.

814 Banner Stone or Tube, *large perforation extending half way through*. Gwinnett Co., Ga. 3¾ x 2¼. Found by John Cox. 3¾ x 2¼.

815 Gorget of sandstone, broken through one hole; fine. 2 x 1¼.

816 Irregular Banner Stone, one perforation, sandstone. 2¾ x 1.

817 Mound Builders' Pipe with stem in bowl, barrel-shaped, projecting edge broken off; good and *rare*.

818 Arrow Straightener of red jasper, polished; fine and *rare*. Kentucky. 2¾ x 1¼.

819 Perforated Rubbing Stone; fine. 1½ x 1½.

820 Canoe-shaped object; good, *rare*. Gwinnett Co., Ga. 2½ x 1¼.

821 Pendant, with two holes, red jasper or slate; fine. 3¼ x 1¼.

822 Pendant, originally elliptical, with two perforations, through which one irregularly placed is broken. Indiana. 5 x 2½.

823 Sinker, steatite, with one round perforation. Oregon. Diameter, ¾ in.

824 Gorget, two small perforations, plano-convex. Knox Co., Tenn. 3 x 1½.

825 Imperforate Pendant, silurian slate; fine.

826 Small Pendant, slate.

827 Oblong elliptical Pendant, silurian slate: fine. A pretty object. 1¼ x ¾.

828 Polished Pendant, irregular in form. Ga. 2¼ x ¾.

829 Oval Bead or Ear Pendant. Length 1¼.

830 Long, elliptical Gorget, ends truncated; fine. 5 x 1¾.

831 Two portions of steatite Pots, 3 x 2, and smaller, each with two perforations.

832 Slate ornament, perforation broken.

833 Steatite Sinker, small perforation.

834 Small Pendant or Bead. 1½ x 1.

835 Perforated, shield-shaped Pendant, lower edge grooved, ornamented. A *rare* object, from the western coast of California, brought to the States more than fifty years ago; very fine. 2 x 1¾.

836 Perforated object, presumed to be a pipe-stem, split in the perforation. 3½ x 1.

837 Bones of small animals, teeth from a western mound, all nicely perforated; *rare* lot. 27 pcs.

838 Stone Beads, with small perforations. 4 pcs.

839 Bone objects, and some of abalona shell. 10 pcs.

840 Bracelets formed of perforated sections of the abalona shell, retaining their beautiful pearly surface, arranged in two bracelets. Los Angeles, Cal. 55 pcs.

841 Circular perforated shell Disks, used by the California Indians for playing a game called "kioto:" *rare*.

842 Portion of a large catlinite Pipestem. Gallia Co., Ohio. 2½ x 1¼.

843 Oval Pendant, with two holes, purple slate. Ohio; fine. 4¼ x 1¾.

844 Oblong Pendant of steatite, all four of the edges have numerous tally marks.

845 Imperforate Pendant, coffin shaped. 5 x 2.

846 Oblong Slate Pendant, from the Lakin collection in New Hampshire. 4 x 2.

847 Oblong Pendant, silurian slate. 3 x 2.

848 Canoe-shaped Object, limonite. Very pretty.

849 Mound builders' small saucer-shaped Vessel. Mitchell Co., Western North Carolina. Dia. 4½.

850 Banner Stones, all fragmentary; sufficient to reproduce the figures by drawing; one lot. 8 pcs.

851 Bead of Agate, prettily marked and handsomely polished; very fine, of large size, from the Linney collection. Kentucky.

OBJECTS FROM SCANDINAVIA.

Several years ago, I bought from J. Grier Hainen, Principal and proprietor of the Norristown Female Institute, an extensive and valuable collection in Archæology, including a great variety of Scandinavian objects, several perhaps to none in America. These have been widely distributed and but few remain, almost all of which will be found in the following list, which, as will be seen, comprises some very fine objects. These things can now no longer be obtained from Europe, as the Governments claim the right to seize and retain for its own museums whatever of the kind it pleases, hence fine specimens can no longer be obtained. Most of these objects are made from true flint, which, as collectors are aware, admits a style of working far surpassing any other material. These things are mostly from Denmark; all are from the North of Europe. Possessing the original Danish inventory, I am able to pick out and identify each one by its description.

DAGGERS AND SPEAR HEADS.

852 Dagger, well wrought. A fine and rare implement. 7½ x 1½.

853 Long Spear Head; fine. 6 x 1.

854 Fine Spear Head, edge serrated, flint, shows original crust. 6 x 1.

855 Broad elliptical Spear Head; very fine. 6½ x 1½.

856 Dagger Point, tip broken. 6 x 1½.

857 Spear Head of yellow flint. 6 x 2.

858 Fine Lance Head. 5½ x 1.

859 Dagger, point broken, but with handle.

860 Lance Head, with handle, white flint. 5½ x 1.

861 Lance Head, serrated, of fine finish. 6½ x —

862 Semi-lunar Knife. 3½ x 1½.

863 Semi-lunar Knife; very fine. $2\frac{3}{4}$ x $1\frac{1}{4}$.

864 Knife, oval; fine. 4 x $2\frac{1}{4}$.

865 Lance Head, or reddish yellow flint. $4\frac{1}{4}$ x 1.

866 Flint Knife, chipped, triangular. $4\frac{1}{2}$ x $1\frac{1}{4}$.

867 Another: fine. $4\frac{1}{2}$ x 1.

868 Broad Spear Head, finely wrought, from Germany. $4\frac{1}{2}$ x $1\frac{1}{4}$.

869 Fine narrow Spear Head. $4\frac{1}{4}$ x 1.

870 Narrow Chisel, polished. 3 x $\frac{3}{4}$.

871 A Whetstone, carried at the girdle to sharpen implements; very fine and *rare;* wedge shaped. 3 x $\frac{1}{2}$.

872 Large polished Celt, sides show great differences of color; fine. $7\frac{3}{4}$ x 3.

873 Another large Celt, from Jutland: fine. $6\frac{1}{2}$ x $2\frac{1}{2}$.

874 Large Celt of fine flesh-colored flint, handsomely finished. $6\frac{1}{2}$ x 3.

875 Polished Celt of dark flint. $5\frac{1}{2}$ x $2\frac{1}{2}$.

876 Polished Celt, flesh-colored variegated flint. 6 x $2\frac{1}{4}$.

877 Handsome polished Celt, one side reddish, the other variegated. 6 x $2\frac{1}{4}$.

878 Polished Celt, flint, nearly white. 4 x 2.

879 Polished Celt, of dark colors. 6 x $2\frac{3}{4}$.

PERFORATED HAMMERS.

The perforated Scandinavian hammer is a scarce object wherever found: several of these, however, are from England. They represent every stage of the hammer in every state of its working. The material is generally dark granite. No similar object is found among American prehistories, the nearest approach to it being some forms of the banner stone.

880 Hammer of graceful form, of the variety known as the Amazon hammer, blocked out in ancient times, the perforation only begun in the back side. $6\frac{3}{4}$ x $1\frac{3}{4}$.

881 Perforated Hammer, different from the last, more like a blacksmith's sledge-hammer, blocked out to near its finish, the perforation more than half completed. $7\frac{1}{2}$ x $2\frac{3}{4}$.

882 Hammer, perforation begun and partially carried through on both sides. $5\frac{1}{2}$ x 2.

883 Hammer, blocked out in the sledge-hammer shape, perforation not commenced. 9 x $2\frac{5}{8}$.

884 Hammer, perforation of small size. The outline is almost shaped like that usually called the "stone" hammer 5 x 2½.

885 Hammer, edge broadly expanding, top round, very coarse form. 5½ x 2½.

886 Hammer, small perforation in form approaches the Amazon hammer. 7 x 2½.

887 Hammer, small perforation, of stone-hammer shape. 4 x 2.

888 Hammer, the weather-wearing of this object shows ages of decay; fine and most curious. 6½ x 2½.

889 Small Amazon Hammer. fine. 4½ x 1½.

890 Amazon Hammer, the perforation and part of the surface polished; fine. 4½ x 2½.

891 Small Hammer, broken at the old perforation and a new one made. 3½ x 2.

892 Small Hammer, perforation inserted obliquely. 4 x 2½.

893 Perforated hammer, opening of exaggerated size; coarse form. 4 x 3.

894 Hammer of great and unusual thickness, neatly polished. 4½ x 2½.

895 Hammer, of good form, hole oblique to the surface; very good, rare. 4½ x 2.

896 Hammer, of small size, hole broken and a new perforation made. 5½ x 2.

897 Celt, called by most European archæologists an axe with a handle; approaches more nearly the grooved axe than any other American form; fine. England. 6½ x 3.

898 Canoe-shaped object, with keel at the bottom, from central Ohio. 5 x 3.

899 Discoidal Stone, fresh from the section of the base found of Ohio Indian relics; bearing his ear marks and marked with his autograph but basis to the workmanship prevented perfect finish. The manufacturer refused to reduce the price below $25, at which he sold it. Since the *Philadelphia Press* fell into the hands of the U. S. officers, very little of the merchandise has come into the market. As the owner prides himself upon the relative genuineness of the present sale he merely offers this object that he may have the opportunity of referring to it as the only fraudulent piece in the sale, which he does with mingled pleasure and disgust. This object came from Pellico River, Texas. 6 x 2½.

900 Bronze Celt, a handsome and very finely finished celt of prehistoric workmanship, with socket and loop for the handle. Zeeland, Denmark. 2 x 2¾.

901 Moccasin Last, found in the river at Dayton, Ohio: of light-colored sandstone, probably unique. 10 x 3½.

902 Rubbing Stone, has seen great wear: flint. Scandinavia. 5 x 3.

ANNOUNCEMENT.

The undersigned begs to announce that he holds frequent sales by auction in New York and Boston, of coins, medals, tokens and prehistoric objects in stone and flint, pottery, bronze and copper, and solicits consignments of the same from collectors, and owners, executors, administrators and trustees, all of which goods he will properly catalogue, and offer for sale to a large constituency of buyers both in America and in Europe with a view to obtaining for owners remunerative prices.

To the sale of coins and medals particularly, and of the various objects to which collectors turn their attention, he has devoted his time for more than thirty years, and he feels that the multitude of his sales and the general success attending them offer a guarantee of faithful service.

For this service a uniform charge of 25 per cent. is made with such trifling expense as packing boxes and transportation, which is seldom more on a consignment than from one to two dollars. This commission includes preparation of the catalogue, printing, distribution and postage, and attendance on the sale in the interest of owners, and the purchases made free of commission to buyers, with no charge to them except freight and packing as aforesaid.

Aware of the low prices at which sales are undertaken at auction, it may be said that the average cost of auction sales for cash paid out averages about 17 per cent. and it is obvious that it cannot fairly be undertaken for less than 25, and in case it is, some interest of the owner must be neglected either by inadequate description or by crowding lots together at the risk of realizing inadequate prices.

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